



Initial Study Summary – Environmental Checklist

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING
976 OSOS STREET • ROOM 200 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805) 781-5600

Promoting the Wise Use of Land • Helping to Build Great Communities

**Project Title & No. Twisselman, et al/Topaz Solar Farm Conditional Use Permit ED08-025
(DRC2008-00009)**

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The proposed project could have a "Potentially Significant Impact" for at least one of the environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input checked="" type="checkbox"/> Geology and Soils | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Agricultural Resources | <input checked="" type="checkbox"/> Hazards/Hazardous Materials | <input checked="" type="checkbox"/> Transportation/Circulation |
| <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Wastewater |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Population/Housing | <input checked="" type="checkbox"/> Water |
| <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Public Services/Utilities | <input checked="" type="checkbox"/> Land Use |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the Environmental Coordinator finds that:

- ☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☒ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Trevor Keith

| | | |
|---------------------|---|------|
| Prepared by (Print) | Signature | Date |
| | Ellen Carroll, Environmental Coordinator | |
| Reviewed by (Print) | Signature (for) | Date |

Project Environmental Analysis

The County's environmental review process incorporates all of the requirements for completing the Initial Study as required by the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The Initial Study includes staff's on-site inspection of the project site and surroundings and a detailed review of the information in the file for the project. In addition, available background information is reviewed for each project. Relevant information regarding soil types and characteristics, geologic information, significant vegetation and/or wildlife resources, water availability, wastewater disposal services, existing land uses and surrounding land use categories and other information relevant to the environmental review process are evaluated for each project. Exhibit A includes the references used, as well as the agencies or groups that were contacted as a part of the Initial Study. The Environmental Division uses the checklist to summarize the results of the research accomplished during the initial environmental review of the project.

Persons, agencies or organizations interested in obtaining more information regarding the environmental review process for a project should contact the County of San Luis Obispo Environmental Division, Rm. 200, County Government Center, San Luis Obispo, CA, 93408-2040 or call (805) 781-5600.

A. PROJECT

DESCRIPTION: The Applicant is requesting a Conditional Use Permit (CUP) to allow for a photovoltaic solar power plant that can produce up to 550 megawatts (MW) of electricity to be installed over an approximate 4,500-acre (seven square miles) Project Site (Project Site) that will be located within one of two Study Areas:

- Study Area A is comprised of approximately 8,000 acres and avoids all lands under Land Conservation Act of 1965 (Williamson Act). If the Proposed Project is located within Study Area A, the Proposed Project site (fenced area) would be approximately 4,500 acres.
- Study Area B is comprised of approximately 6,500 acres and includes approximately 1,920 acres of land currently under Williamson Act contract. If the Proposed Project is located within Study Area B, the Proposed Project site (fenced area) would be approximately 4,300 acres, including 1,300 acres of lands under Williamson Act contract (approximately 30 percent of the Proposed Project site).

The Project site will be located on approximately 4,500 acres within either Study Area A or Study Area B. Both Study Area options will be considered in the EIR.

The following components are proposed within the 4,500-acre Project Site: 437 photovoltaic arrays, electrical equipment, access roads, substation and switching station, Solar Energy Learning Center (900 sq. ft.), Monitoring & Maintenance Building, perimeter fencing and four temporary on-site construction staging areas (approximately ten acres each). Both of the study areas are located adjacent to Highway 58, east of Bitterwater Road, and approximately two miles northwest of the village of California Valley, in the Shandon-Carrizo planning area.

Other Project elements include:

- Construction phase:
 - Approximately 400 daily construction workers on average are expected over a three-year period.
 - Four ten-acre construction staging are proposed that will accommodate temporary construction offices, parking, material laydown, and storage area.
 - Primary haul route is being re-evaluated by the Applicant based on comments from the San Luis Obispo County Planning Department and Public Works Department.
 - Panel anchoring will use pile driven steel posts instead of concrete anchors.

- Operational phase:
 - Over seven million solar modules within approximately 437 arrays;
 - Top of solar panel array typically about 5.5 feet from the ground -note that the distance from the ground to the top of the PV module table may vary depending on the topography;
 - PV arrays primarily composed of tempered glass, cadmium telluride semiconductor material (encapsulated within two sheets of glass) steel, and copper wiring;
 - 437 power conversion stations (PCS), which each include two inverters and one transformer;
 - Approximately 30 PV combining switchgear (PVCS) houses
 - Approximately eight to 15 (depending on the Option selected) miles of above-ground electrical collector lines at about 43 feet from ground;
 - Approximately 15 permanent employees;
 - Perimeter fencing that uses six foot high chain link with three strands of barb wire on top and small openings approximately every 100 yards adequate to allow for passage by the San Joaquin Kit Fox.

Lot Line

A Lot Line Adjustment has also been filed by a current property owner between two (2) legal parcels of 640 and 320 acres in the Agricultural zone. The property is not under Williamson contract and is currently used as cropland. The parcels were created legally, COAL 82-201, in 1985. Although an internal lot line would be added and one would be removed, the perimeter and acreage of the two parcels would not change. See Appendix 2 for a location map and a visual description of the proposed lot line adjustment.

Parcel Map

A subdivision (Parcel Map) of a 640 acre parcel into two parcels of 190 acres and 450 acres has been filed by a current property owner. The property is located in the Shandon/Carrizo planning area. A Notice of Non-Renewal was filed on December 12, 2008, to remove the property from the Williamson Land Conservation Contract. The property currently has a single family residence on it and the remainder of the property is used as grazing land. The parcel was created legally in 1985 as Parcel 12 of Parcel Map COAL 82-201, recorded in Book 36, Page 52 of Parcel Maps.

This Project is considered of statewide, regional or area wide significance, according to CEQA sections 15206 and 15072(e).

OPTION A STUDY AREA

ASSESSOR PARCEL NUMBER(S): 072-051-003, 072-051-004, 072-051-005, 072-051-008, 072-051-013, 072-051-017, 072-051-018, 072-051-019, 072-051-020, 072-051-021, 072-051-023, 072-051-024, 072-051-025, 072-051-029, 072-061-011, 072-061-032, 072-061-033, 072-061-036, 072-061-037, 072-061-038, 072-061-039, 072-061-040, 072-061-041, 072-061-054, 072-061-055, 072-091-001, 072-091-005, 072-091-007, 072-091-009, 072-091-010, 072-101-023, 072-101-030, 072-101-031, 072-131-001, 072-131-002, 072-301-005

Latitude: degrees ' " N Longitude: degrees ' " W

SUPERVISORIAL
DISTRICT # 5

OPTION B STUDY AREA

ASSESSOR PARCEL NUMBER(S): 072-011-005, 072-011-006, 072-051-003, 072-051-004, 072-051-

005, 072-051-007, 072-051-008, 072-051-013, 072-051-017, 072-051-018, 072-051-019, 072-051-020, 072-051-021, 072-051-023, 072-051-024, 072-051-025, 072-051-027, 072-051-028, 072-051-029, 072-061-011, 072-061-027, 072-061-031, 072-061-032, 072-061-033, 072-061-036, 072-061-037, 072-061-038, 072-061-039, 072-061-040, 072-061-041, 072-061-054, 072-061-055, 072-091-001, 072-091-010, 072-101-023, 072-301-005.

Latitude: degrees ' " N Longitude: degrees ' " W

SUPERVISORIAL
DISTRICT # 5

B. EXISTING SETTING (the same for Option A and Option B)

PLANNING AREA: Shandon/Carrizo, Rural

LAND USE CATEGORY: Agriculture

COMBINING DESIGNATION(S): Flood Hazard

EXISTING USES: agricultural uses undeveloped. (Four additional residences are surrounded by the Project Study Areas but a part of the Project).

TOPOGRAPHY: Nearly level to gently sloping

VEGETATION: Grasses , wetland

PARCEL SIZE: Option A Study Area consists of 8,000 acres and Option B of 6,500. Option A has a final development fence area of 4,500 acres (7 square miles), and Option B has a final development fence area of 4,300 acres (6.75 square miles).

SURROUNDING LAND USE CATEGORIES AND USES:

North: Agriculture; undeveloped

East: Agriculture; undeveloped

South: Agriculture; undeveloped

West: Agriculture; undeveloped

C. ENVIRONMENTAL ANALYSIS

During the Initial Study process, several issues were identified as having potentially significant environmental effects (see following Initial Study).

Those potentially significant items associated with the proposed uses can be minimized to less than significant levels. The following Environmental Analysis considers both Study Area A and Study Area B. Where the analysis is unique to a specific Study Area, it is indicated as such.

COUNTY OF SAN LUIS OBISPO INITIAL STUDY CHECKLIST

| 1. | AESTHETICS - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|----|--|-------------------------------------|--------------------------------------|-------------------------------------|--------------------------|
| a) | <i>Create an aesthetically incompatible site open to public view?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) | <i>Introduce a use within a scenic view open to public view?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) | <i>Change the visual character of an area?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) | <i>Create glare or night lighting, which may affect surrounding areas?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) | <i>Impact unique geological or physical features?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) | <i>Other:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. Project Elements: Both Study Area A and B are comprised of nearly level to gently sloping areas primarily covered with grasses (including naturalized and dryland grain varieties) and shrubs. Potential high visual quality elements include: large to very large parcels with sparsely scattered homes, uninterrupted natural plant communities, prominent backdrop of the Temblor range, and rural pastoral aspects.

Public vantage. The Project will be visible most immediately from Highway 58, and the southern end of Bitterwater Road. If the Project is located within the Option A Study Area, it will also likely be visible from the northern ends of Branch Mountain Road and Soda Lake Road. Due to the Project's size, other more distant public vantages may also be able to see the completed Project to a lesser extent.

County LUO/LUE

The County's Land Use Element (Framework for Planning) includes the following General Goals intended, in part, to maintain certain visual qualities for the county:

7. Encourage an urban environment that is an orderly arrangement of buildings, structures and open space appropriate to the size and scale of development for each community.
8. Maintain a distinction between urban and rural development by providing for rural uses outside of urban and village areas which are predominately agriculture, low-intensity recreation, residential and open space uses, which will preserve and enhance the pattern of identifiable communities.
9. Identify important agricultural, natural and other rural areas between cities and communities and work with landowners to maintain their rural character.
10. Encourage the protection of agricultural land for the production of food, fiber, and other agricultural commodities.

Open Space Element. The County's Agriculture and Open Space Element includes two specific policies (OSP24 [Scenic Corridors] & OSP25 [Development and Land Divisions]) intended to protect scenic corridors, which identifies Highway 58 as a potentially scenic area warranting further study. The Agricultural portion of the Element also includes several policies that indirectly provide some

protection of visual resources including: Land Conservation Contracts, Land Division and Development, discourage conversion of Rural Areas to Urban Lands or creation of “small-lot” Rural designation in RR or RS.

The Applicant is preparing visual simulations and a reflectivity study.

Impact. As proposed, the Project will potentially result in visual impacts to views from roadways in the Project vicinity, including Highway 58 and Bitterwater Road, due primarily to the 4,500-acre massing of photovoltaic panels in contrast with the rural setting. As proposed, the solar panels, which makes up the bulk of the Project, will be approximately 5.5 feet from the ground. Inverters will be placed in small buildings not to exceed 12 feet in height. Distant views from public vantages are expected to still be visible upon completion of the Project.

Given that all panels will be fixed and oriented in the same direction and have a reflective aspect, there is a potential for impacts associated with glare. The highest potential for glare will arise in the early morning and late evening when the sun is low, toward the west and east of the Project, respectively.

Most of the electrical connection between panels will be either behind the panels or underground. However, some of the internal lines (approximately 8 to 15 miles) will be located overhead lines on 43-foot poles.

Night lighting will be limited to the proposed Monitoring and Maintenance Building and the Project Area substation and for limited maintenance activities during operation. Night lighting will be used for task-specific purposes during construction. All permanent lighting will be shielded from surrounding property lines. Construction is expected to last approximately three years.

Minimal grading is proposed on the Project Site. It is estimated that approximately 14 percent of the Option A Project Site will be graded, and approximately 40 percent of the Option B Project Site will be graded. Due to the nearly level topography, it is not expected that cut and fill areas will present a potentially significant impact. A detailed grading plan has been submitted by the Applicant. The use of posts driven into the ground instead of concrete ballasts for anchoring the PV panels will reduce the amount of disturbance required.

Mitigation/Action Required. Due to the potentially significant impacts to public views, a viewshed analysis from the highway and major roads shall be prepared by qualified persons and shall include, but not be limited to, the following:

1. Development of ratings and recommendations for the assignment of aesthetic values to protect views from Highway 58 and other impacted roadways, and to identify other, if any, potentially significant key viewing areas.
2. Due to the low profile of this development, visual simulations would be an optional task.
3. Glare shall be evaluated, including a determination of how far the glare would be considered significant to surrounding properties.
4. While night lighting is not expected to be significant, due to the existing rural “dark skies”, this issue shall be analyzed.
4. Evaluate the cumulative effects of this Project combined with other similar requests (the SunPower California Valley Solar Ranch).
5. Recommendation and discussion of adequate and feasible mitigation measures, if any, to ensure that visual resources are adequately protected.

| 2. AGRICULTURAL RESOURCES - <i>Will the project:</i> | | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|--|---|-------------------------------------|--------------------------------|-------------------------------------|--------------------------|
| a) | <i>Convert prime agricultural land to non-agricultural use?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) | <i>Impair agricultural use of other property or result in conversion to other uses?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) | <i>Conflict with existing zoning or Williamson Act program?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) | <i>Other:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. Project Elements. The following area-specific elements relate to the property's importance for agricultural production:

Land Use Category: Agriculture

Historic/Existing Commercial Crops: rotational field crops (grain)

State Classification: Not prime farmland, Farmland of Statewide Importance, Prime Farmland if irrigated

In Agricultural Preserve? No

Under Williamson Act contract? Yes (portion of Study Area B)

Several properties near the subject development are known to support rotational field crops.

County Policies & Regulations

The following discussion identifies county or state policies or regulations relating to agriculture.

San Luis Obispo County Agriculture and Open Space Element. The Agriculture and Open Space Element of the San Luis Obispo County General Plan provides a background on agricultural and open space resources within the County. Through the goals, policies, implementation programs and measures provided within the document, the County's intent is,

"To promote and protect the agricultural industry of the County, to provide for a continuing sound and healthy agriculture in the County, and to encourage a productive and profitable agricultural industry."

California Land Conservation Act of 1965 and Agricultural Preserves (applicable to portions of Study Area B). Also known as the Williamson Act, this legislation encourages and enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use, which in turn protect agricultural and open space lands from urban development. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming uses rather than full market value. Local governments receive a subsidy for forgone property tax revenues from the state via the Open Space Subvention Act of 1971.

The County's agricultural preserve program was created to implement the California Land Conservation Act of 1965. The state has traditionally reimbursed participating counties with subvention funds for this foregone tax revenue from contracted properties.

Lands that enter into the County's agricultural preserve program are subject to zoning restrictions including parcel size restrictions ranging from 40 acres for prime land and 100 acres for non-prime land. A Williamson Act contract is a legal contract between a landowner and a land-regulating

agency under the Williamson Act (i.e., the County). Under Williamson Act contract, the property owner agrees not to develop the property for a period of 10 to 20 years. The contract automatically renews each year for a new 10-year period unless the owner files a Notice of Non-renewal to indicate his or her intention to terminate the contract at the end of the current 10-year period. Williamson Act contracts may also be terminated by a public agency if the property under contract is being acquired for another purpose in the public's interest under eminent domain or other public acquisition procedures.

For 2003, the state paid \$39 million to 52 counties with Williamson Act properties, \$1.1 million of which was given to San Luis Obispo. As of December 2003, there were approximately 704,000 total acres within the County protected under Williamson Act contracts.

If the Project is located within Study Area B, approximately 30 percent of the Project could be situated on lands currently under Williamson Act contract. Power plants are not generally allowed where the property is under a Williamson Act contract. Properties to the north, east and west of the Project are under Williamson Act contract.

The California Government Code, such as Section 51238(a)(1), will be looked at for applicability to the proposed Project. Section 51238(a)(1) says:

“Notwithstanding any determination of compatible uses by the county or city pursuant to this article, unless the board or council after notice and hearing makes a finding to the contrary, the erection, construction, alteration, or maintenance of gas, electric, water, communication, or agricultural laborer housing facilities are hereby determined to be compatible uses within any agricultural preserve.”

San Luis Obispo County "Right-to-Farm" Ordinance. The San Luis Obispo County "Right-to-Farm" Ordinance states that the use of real property for agricultural operations is a high priority and favored use. Ordinance No. 2561 (August, 1992) added Chapter 5.16 to Title 5 of the San Luis Obispo County Code relating to Agricultural Lands, Operations, and The Right To Farm. Paragraph "b" of Section 5.16.020 (Findings and Policy) states:

Where non-agricultural land uses occur near agricultural areas, agricultural operations frequently become the subjects of nuisance complaints due to lack of information about such operations. As a result, agricultural operators may be forced to cease or curtail their operations. Such actions discourage investments in farm improvements to the detriment of agricultural uses and the viability of the County's agricultural industry as a whole.

The right-to-farm ordinance advises purchasers of residential and other property types adjacent to existing agricultural operations of the inherent potential problems associated with the purchase of such property. Such concerns may include, but are not limited to, the noises, odors, dust, chemicals, smoke and hours of operation that may accompany agricultural operations.

Pre-existing agricultural uses are not a nuisance (Section 5.16.030). California Civil Code Section 3479 defines a "nuisance" as anything that is injurious to health, is indecent or offensive to the senses, or is an obstruction to the use of property, so as to interfere with the comfortable enjoyment of life or property. San Luis Obispo County has determined that the use of real property for agricultural operations is a high priority and favored use to the County, and those inconveniences or discomforts arising from legally established agricultural activities or operations, as defined in the San Luis Obispo County Code, or State law, shall not be or become a nuisance. [Therefore, the proposed Project is and will continue to be subject to those inconveniences or discomforts arising from adjacent and surrounding agricultural operations, which if conducted in a manner consistent with State law and County code, shall not be or become a nuisance.]

Agricultural Soils. The Natural Resource Conservation Service (NRCS) surveys soils and assigns a soil capability classification that is used to determine whether the soil is a prime or non-prime agricultural soil. Soils with a capability Class I are soils that have few limitations that restrict their use.

Class II soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices (USDA 1983). Soils with a capability Class of I or II are generally considered to be “prime agricultural soils”. Prime soils indicate the presence of Prime Farmland. According to the USDA, Prime Farmland is land best suited for producing food, feed, forage, fiber and oilseed crops and is also available for cropland, pastureland, rangeland, and forestland. It has the soil quality, growing season and moisture supply needed to produce sustained high yields of crops economically when treated and managed (including water management) according to modern farming methods. As of 2000, the total area of Prime Farmland located within San Luis Obispo County was 41,386 acres, approximately three percent of the total area inventoried (1,302,172 acres) countywide (California Department of Conservation, 2002).

The soil type(s) and characteristics on the subject property include:

Jenks clay loam (2 to 9% slopes). This gently sloping soil is considered moderately drained. The soil has low erodibility and moderate shrink-swell characteristics, as well as having potential septic system constraints due to: slow percolation, shallow depth to bedrock, steep slopes. The soil is considered Class IV without irrigation and is unrated when irrigated.

Seaback-Panoza-Jenks complex (9 to 15% slopes). This moderately sloping soil is considered moderately drained. The soil has moderate erodibility and moderate shrink-swell characteristics, as well as having potential septic system constraints due to: shallow depth to bedrock, cemented pan, steep slopes, and slow percolation. The soil is considered Class VII without irrigation and is unrated when irrigated.

Yeguas-Pinspring complex (0 to 2% slopes). This nearly level soil is considered not well drained. The soil has moderate erodibility and low shrink-swell characteristics, as well as having potential septic system constraints due to: slow percolation, steep slopes, seepage in bottom layer. The soil is considered Class IV without irrigation and Class II when irrigated.

Yeguas-Pinspring complex (2 to 5% slopes). This gently sloping soil is considered not well drained. The soil has moderate erodibility and low shrink-swell characteristics, as well as having potential septic system constraints due to: slow percolation, steep slopes, seepage in bottom layer. The soil is considered Class IV without irrigation and Class II when irrigated.

Thomhill loam (2 to 5% slopes). This gently sloping soil is considered moderately drained. The soil has moderate erodibility and low shrink-swell characteristics, as well as having potential septic system constraints due to: slow percolation. The soil is considered Class IV without irrigation and Class II when irrigated.

Water Availability/Quality. Rainfall within the Carrizo plains averages approximately eight inches a year.

The Carrizo Plain Groundwater Basin contains a storage capacity of 400,000 acre-feet with a safe yield of 600 acre-feet per year (based on natural recharge). Water depths range from 200 to 600 feet from the ground surface. Current demand (based on SLO Co. Water Plan, 2001) is 930 AFY, where about 200 afy is used for agriculture and 730 afy for rural uses.

Water quality varies within the basin. The County’s Master Water Plan identifies the average total dissolved solids (TDS) within the basin is as much as 5,000 ppm of TDS, which is 4,000 above the acceptable level limit of 1,000 ppm.

As is evident from current and historic crop information provided by the County Agricultural Commissioner’s Office and recent aerial photos, almost all agricultural activities within the groundwater basin use little if any groundwater (e.g., dry land grain production, cattle grazing, etc.).

Farmland Conversion. The conversion of prime agriculture lands to non-agricultural uses is a concern within the County and across the State. The California Department of Conservation’s Farmland Mapping and Monitoring Program (FMMP) tracks farmland conversion throughout the State.

According to a recent FMMP survey, urban development increased by 30 percent statewide between 1998 and 2000. Of this urbanization, 19 percent occurred on Prime Farmland (FMMP 2002).

The majority of farmland losses occurred due to conversions to low-density residential uses, ecological restoration projects, or long-term land idling. Anticipated urban development, unavailability of irrigation water, soil issues, and economic factors are likely reasons that land has gone idle in any given location. Conversely, land was also converted from native vegetation or formerly idle farmland to irrigated uses. The central coast experienced conversions of this type totaling more than 40,000 acres between 1998 and 2000, mostly from vineyard development; however, a large majority of the land brought into irrigated agriculture did not qualify for Prime Farmland.

Most of the Project boundaries are within lands recognized under the state's farmland classification system as "Prime farmland, if irrigated". However, as stated above under "Water Availability" there appears little historic or current evidence that these soils have been or are commercially irrigated.

Transportation costs for agricultural products are expected to be greater per capita, as this area is not close to urban areas or distribution hubs, and large vehicles would need to go slower on the narrower, windier and/or poorly maintained roads to get to good commercial transport roads. As fuel prices increase, the potential for using this area for commercial agriculture diminishes.

The Ag Commissioner's Office did identify in their original NOP response that, while the soils should not be considered prime, there was sufficient production of grain to be a candidate for recognition under the State's classification system as "Farmland of Local Importance".

Impact. The Project proposes a solar power plant over an approximately seven square mile (4,500 acre) area. The majority of both Study Areas is covered by Class IV soils (Pinspring, Yenguas) when non-irrigated. These soils, if irrigated would be considered Class II soils. As previously cited, due to very limited water quantity and poor quality, along with very low rainfall, it cannot be reasonably argued that there is sufficient water to consider these soils potentially irrigated. This is supported in part to the crop maps maintained by the Ag Commissioner's Office, which show little crop activity within the groundwater basin, and the few areas with activity are either cattle grazing or dryland grain production, which do not use irrigation.

A portion of Study Area B is contracted land under the Williamson Act, and up to a third of the Project area could end up being under contract. A power plant is not considered an allowed use for lands under such a contract. The methods to remove the contract from a specified area include: non-renewal (9-10 year process), cancellation, annexation to a city, public acquisition, and land transfer. The Applicant is proposing a combination of non-renewal/cancellation. The county is currently evaluating the approach and intends to discuss further with the Department of Conservation.

Mitigation/Conclusion. Mitigation/Action Required. Due to the potential impacts to agricultural resources, additional analysis is needed by a qualified individual. The agricultural resource analysis should include, but not be limited to, the following:

1. Consultation with the County Agricultural Commissioner's Office, County Planning & Building (Ag Preserve Program), and the California Department of Food and Agriculture, Department of Conservation (Williamson Act).
2. A description of the existing and historical agricultural setting, uses and practices including an emphasis on the unique rainfall, climatic, topographic and vegetative characteristics of the site.
3. A description of adjacent and regional agricultural uses. "Regional" will need to be defined as a "study area" by the consultant, in consultation with the County Agricultural Commissioner's Office and the State Department of Food and Agriculture.
4. A description of the agricultural suitability of the site, including soil types, soil capabilities, and the productivity of agricultural soils both for irrigated and non irrigated uses, and an analysis of crops and livestock uses suited to the site.
5. Discussion of the existing Williamson Act program as it relates to lands under contract in Option

- B, the options to remove such lands from a contract, and discussion of state and local policies. EIR consultant will work with county staff and Dept. of Conservation on this analysis.
6. Identification and description of current and potential future water sources suitable for agricultural uses (see Water Resources).
 7. Evaluation of the potential adverse impacts to agricultural capability resulting from the Project.
 8. Evaluation of the potential adverse impacts to the agricultural capability of adjacent or nearby lands currently enrolled in the Agricultural Preserve Program.
 9. Evaluation of the potential for the loss of agriculturally productive soils as a result of the Project.
 10. Evaluation of the potential for incompatibilities between adjacent agricultural operations on the site as a result of creating smaller autonomous agricultural units.
 11. Given one other pending solar farm request, and the potential for additional solar plants in the area, conduct a cumulative assessment on agriculture in the area.
 12. Recommendation and discussion of adequate and feasible mitigation measures, if any, to ensure that agricultural resources are adequately protected.

| 3. AIR QUALITY - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) <i>Violate any state or federal ambient air quality standard, or exceed air quality emission thresholds as established by County Air Pollution Control District?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) <i>Expose any sensitive receptor to substantial air pollutant concentrations?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) <i>Create or subject individuals to objectionable odors?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) <i>Be inconsistent with the District's Clean Air Plan?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) <i>Other:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. The following provides a summary of historic and existing air quality conditions that relate to the Project's potential impacts to or from existing or projected air quality.

Non-Attainment. The County is within the South Central Coast Air Basin, which is currently considered by the state as being in "non-attainment" (exceeding acceptable thresholds) for particulate matter (PM₁₀, or fugitive dust) and ozone.

The Air Pollution Control District (APCD) estimates that automobiles currently generate about 40 percent of the pollutants responsible for ozone formation. Nitrous oxides (NO_x) and reactive organic gasses (ROG) pollutants (vehicle emission components) are common contributors towards this chemical transformation into ozone. Dust, or particulate matter less than ten microns (PM₁₀), that becomes airborne and finds its way into the lower atmosphere, can act as the catalyst in this chemical transformation to harmful ozone.

APCD Program. To address these impacts APCD has developed a program (CEQA Air Quality Handbook) to establish impact thresholds and mitigation measures to address most project-related air

quality impacts.

Local Air Quality. The Project is nearest to the Carrizo Plain and Shandon Air Quality Monitoring Stations. Based on the latest air monitoring station information, the trend in air quality in the general area is unchanged.

The Project proposes to disturb soils that have been given a wind erodibility rating with a range of 1 to 3, which is considered “low” to “moderate”.

Valley Fever. Coccidioidomycosis (also known as Valley fever, San Joaquin Valley Fever, California valley fever, desert fever, and coccidiomycosis) is a fungal disease caused by *Coccidioides immitis* or *C. posadasii*. It is endemic in certain parts of Arizona, California, Nevada, New Mexico, Texas, Utah and northwestern Mexico.

C. immitis resides in the soil in certain parts of the southwestern United States, northern Mexico, and parts of Central and South America. It is dormant during long dry spells, then develops as a mold with long filaments that break off into airborne spores when the rains come. The spores, known as arthroconidia, are swept into the air by disruption of the soil, such as during construction or farming. Infection is caused by inhalation of the particles. The disease is not transmitted from person to person. *C. immitis* is a dimorphic saprophytic organism that grows as a mycelium in the soil and produces a spherule form in the host organism.

The disease is usually mild, with flu-like symptoms and rashes, and the Mayo Clinic estimates that half the population in some affected areas have suffered from the disease. On occasion, those particularly susceptible, including pregnant women, people with weakened immune systems, and those of Asian, Hispanic and African descent, may develop a serious or even fatal illness from valley fever. Serious complications include severe pneumonia, lung nodules, and disseminated disease, where the fungus spreads throughout the body. The disseminated form of valley fever can devastate the body, causing skin ulcers and abscesses to bone lesions, severe joint pain, heart inflammation, urinary tract problems, meningitis, and death.

It has been known to infect humans, dogs, cattle, and livestock, among other mammals.

The San Luis Obispo County Health Department conducted a 2007 study due to a Valley Fever outbreak in the North County. The report identifies construction crews involved with moving previously undisturbed soils in inland areas, especially in the Fall, are at a higher risk of coming in contact with this airborne fungus. The report includes a number of measures to reduce the potential for this organism from infecting humans, with 1) the use of dust control measures and 2) making sure workers are informed of the symptoms to provide for immediate medical attention if contracted, as the most effective means to avoid significant problems.

Impact. As proposed, the Project will ultimately result in the installation of PV arrays over approximately seven square miles (4,500 acres) during a three-year construction period. Given that both proposed Study Areas are primarily over level to gently sloping lands, a relatively limited amount of soil disturbance is expected. This will result in the creation of construction dust, as well as short- and long-term vehicle emissions. During construction, approximately 400 employees are anticipated. Up to 15 full-time permanent employees are expected. Approximately 14 miles under Option A and 23 miles under Option B of on-site gravel access roads utilizing existing agricultural roads to the extent feasible will be developed or upgraded (approximately 41,000 cubic yards of gravel or other non-specified road stabilization treatment proposed for Option A and 77,000 cubic yards proposed for Option B). Minimal grading is proposed on the Project Site. It is estimated that approximately 14 percent of the Option A Project Site will be graded and approximately 40 percent of the Option B Project Site. Four construction staging areas are proposed. The previously proposed temporary concrete batch plants are no longer proposed due to the redesigned panel anchoring system. A complete grading plan will be submitted for analysis.

Establishment of this solar power plant will assist PG&E towards achieving their goal of 20 percent of

their power being from renewable sources, such as solar energy, by 2010 and 33 percent by 2020. Creation of such a plant will help meet the requirements of the Global Warming Solutions Act (AB 32) emission reductions requirements.

Mitigation/Action Required. Due to the Project's potential impacts to air quality and that San Luis Obispo County has been designated non-attainment for PM10 (fine particulate), additional analysis of air quality impacts shall be accomplished by a qualified air quality specialist and shall include, but not necessarily be limited to, the following:

1. Consultation with the Air Pollution Control District.
2. A description of the existing air quality in the Project area, including:
 - a. Discussion of applicable State and Federal air quality standards.
 - b. Local climate and air pollution meteorology.
 - c. Local trends and patterns of air pollutant concentrations including air quality monitoring data from local monitoring stations.
3. Discussion of State and Federal attainment status and current air quality planning efforts within the County.
4. Discussion of County air quality policies relative to development, using thresholds of significance derived from the adopted Clean Air Plan, as well as discussion of recent State legislation (e.g., AB32, etc.) and/or case law that may apply to this Project.
5. Summary of the thresholds and air quality constraints for development of the property.
6. Evaluate the potential for Valley Fever and determine what if any measures are appropriate to reduce impacts to workers and surrounding residences and livestock during dust-generating activities.
7. Recommendation and discussion of adequate and feasible mitigation measures, if any, to address project specific and cumulative air quality impacts.

| 4. BIOLOGICAL RESOURCES - Will the project: | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|---|-------------------------------------|---|---------------------------------|---------------------------|
| a) Result in a loss of unique or special status species or their habitats? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Reduce the extent, diversity or quality of native or other important vegetation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Impact wetland or riparian habitat? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Introduce barriers to movement of resident or migratory fish or wildlife species, or factors, which could hinder the normal activities of wildlife? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Other: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. The following are existing elements on or near the proposed Project relating to potential biological concerns:

On-site Vegetation: non-native grassland, wetlands, agricultural uses (dryland grain, rangeland)

Name and distance from blue line creek(s): six unnamed creeks on-site

Habitat(s): Vernal pools (Carrizo region)

The Natural Diversity Database (or other biological references) identified the following species potentially existing within approximately one mile of the proposed Project:

Plants- Lemmon's jewelflower (*Caulanthus coulteri* var. *lemmonii*) has been found northwest of the current "study area". This annual herb is generally found in pinyon and juniper woodland and valley and foothill grassland areas between the 80 and 1,220-meter elevation (260 to 4,265 feet). It has a blooming period of March-May. Lemmon's jewelflower is considered rare by CNPS (List 1B, RED 2-2-3). Appropriate habitat for Lemmon's jewelflower does not occur in and around the Project Study Areas, based on botanical surveys conducted to date (Althouse & Meade; October 2009),.

Biological Reports. Per the preliminary biological report (Althouse & Meade; July, 2008), twenty four special status plants for the region were identified. Of these thirteen were identified as potentially occurring. Additional biological reports will be forthcoming.

Wildlife

Birds - General Statement: Common bird species occurring in the general area are identified below using standard nomenclature. Typical species that utilize open grassland areas and fields for foraging and/or nesting include red-tailed hawk, red-shouldered hawk, American kestrel, Cooper's hawk, black-shouldered kite, burrowing owl, Western meadowlark, Say's phoebe, and Western bluebird. Riparian habitats support such species as Anna's hummingbird, Northern flicker, scrub jay, bushtit, black phoebe, red-winged blackbird, belted kingfisher, black-crowned night heron, and American bittern. Woodland and coastal scrub areas provide resources for California quail, acorn woodpecker, brown towhee, dark-eyed junco, and white-breasted nuthatch. Wading birds such as the great blue heron, and snowy and great egrets frequent and utilize freshwater marsh and riparian habitats, as well as open grassland areas for foraging. Telephone poles and tall trees, such as sycamores and cottonwoods provide roosting and hunting perches for raptors including red-tailed and red-shouldered hawks. Windrow trees including eucalyptus, often provide suitable nesting sites for birds of prey such as great horned owls and barn owls. In addition to occurring within their natural habitat, species such as white-crowned sparrow, brewer's blackbird, American crow and yellow-billed magpie are commonly found in developed areas.

Sensitive bird species

Bald eagle (*Haliaeetus leucocephalus*) have been found in the region. This listed species is considered federally threatened and endangered by the state. The eagle is more common at lower elevations, and not found in the high Sierra Nevada. Fairly common as a local winter migrant at a few favored inland waters in southern California, including Nacimiento Reservoir. For feeding, the bald eagle requires large bodies of water, or free flowing rivers with abundant fish, and adjacent snags or other perches to swoop and pluck fish from water. In flooded fields, occasionally pounces on displaced voles, or other small mammals. Scavenges dead fish, water birds, and mammals. The eagle nests in large, old-growth, or dominant live tree with open branchwork. Species of tree is apparently not as important as height and size. Nests are found most frequently in stands with less than 40% canopy, usually with some foliage shading the nest (Call 1978). Often the largest tree in a stand is chosen on which to build a stick platform nest. Nests are located 16-61 meters (50-200 ft) above ground, usually below tree crown. The nest is usually located near a permanent water source. In California, 87% of nest sites were within 1.6 km (1 mi) of water. Breeding is between February through July, with peak activity between March to June. Territories have been abandoned after disturbance from logging, recreational development, and other human activities near nests (Thelander 1973).

Burrowing owl (*Athene cunicularia*) has been found in the region. This species is a California Species of Special Concern (CSC). The species are found in grasslands and sparsely vegetated woodland and scrub habitat throughout California. Burrowing owls often nest in abandoned ground squirrel burrows that overlook suitable forage areas. Typical prey items include insects, small mammals, birds, reptiles, and carrion.

California condor (*Gymnogyps californianus*) has been found in the area historically. This listed species is considered endangered at the federal and state levels. The current population is 103, including 86 individuals in captivity at the Los Angeles Zoo, San Diego Wild Animal Park, and the World Center for Birds of Prey, and 17 captive-hatched condors released into Santa Barbara and San Luis Obispo counties. California condors are among the largest flying birds in the world. Adults weigh approximately 10 kilograms (22 lbs) and have a wing span up to 2.9 meters (9½ ft). California condors require suitable habitat for nesting, roosting, and foraging, which includes chaparral, coniferous forests, and oak savannah habitats. Nest sites are located in cavities in cliffs, in large rock outcrops, or in large trees. Foraging occurs mostly in grasslands, including potreros within chaparral areas, or in oak savannahs. At present, sufficient remaining habitat exists in California and in southwestern states to support a large number of condors, if density independent mortality factors, including shooting, lead poisoning, and collisions with man-made objects, can be controlled. The possibility of eventual genetic problems, resulting from the species' recent perilously low population size, cannot be discounted.

Loggerhead shrike (*Lanius ludovicianus*) has been found in the region. This species is a California Species of Special Concern (CSC). The species inhabit lowlands and foothills throughout most of California. This species is considered a common resident of most of San Luis Obispo County. Preferred habitats for loggerhead shrike include woodland, chaparral, coastal scrub, and grassland with perches such as fences, posts, and scattered trees.

Other sensitive birds in general area: Ferruginous hawk (*Buteo regalis*), Golden eagle (*Aquila chrysaetos*), mountain plover, Oregon vesper sparrow

Mammals

American badger (*Taxidea taxus*) have been found on-site in the northwestern corner of the property. In California, Badgers range throughout the state except for the humid coastal forests of northwestern California (Del Norte and Humboldt Co). Badger populations have declined drastically in California within the last century (Grinnell et al., 1937; Longhurst, 1940), where they now survive only in low numbers in peripheral parts of the central valley and adjacent lowlands to the west in eastern Monterey, Mendocino, San Benito and San Luis Obispo counties. In California, Badgers occupy a diversity of habitats. The principal requirements seem to be sufficient food, friable soils, and relatively open, uncultivated ground. Grasslands, savannas, and mountain meadows near timberline are preferred. Badgers prey primarily on burrowing rodents such as Gophers (*Thomomys*), Ground Squirrels (*Spermophilus*, *Ammospermophilus*), Marmots (*Marmota*), and Kangaroo Rats (*Dipodomys*). They are predatory specialists on these rodents, although they will eat a variety of other animals, including mice, Woodrats, reptiles, birds and their eggs, bees and other insects, etc.

Deliberate killing probably has been a major factor in the decline of Badger populations with many people regarding them as detrimental to their interests. Cultivation is adverse to Badgers, as they do not survive on cultivated land. Agricultural and urban developments have been the primary causes of decline and extirpation of populations of Badgers in California. Rodent and predator poisoning pose double threats through direct and secondary poisoning of Badgers and elimination of the food Badgers are

dependent upon. Shooting and trapping of Badgers for animal "control" is another source of mortality.

Giant kangaroo rats (*Dipodomys ingens*) have been found in the area. This listed species is considered endangered at both the state and federal levels. Permanent residents occur in scattered colonies along the western side of the San Joaquin Valley (e.g., Carrizo Plain, Panoche Valley). They are found on fine sandy loam soils supporting sparse annual grass/forb vegetation, and marginally found in low-density alkali desert scrub. Currently these nocturnal mammals occupy about 2% of their former range (California Dept. Fish and Game 1980a). Primary loss of habitat has been due to cultivation. In addition, the trampling of colonies by cattle and the use of rodenticides have degraded habitats and reduced population levels. Seeds of peppergrass and filaree are primary foods of the giant kangaroo rats (Shaw 1934). Level terrain and sandy loam soils are needed for burrowing. Optimal cover consists of areas with almost no shrub overstory, and very few physiographic variations (Grinnell 1932, Shaw 1934, Hawbecker 1951). Burrow systems (Shaw 1934) may cover an area of 5.2 x 6.7 m (17 x 22 ft). Breeding is from January to May, and peaking in early spring. Litter size ranges from 4-6. Young born and reared in the burrows. Predators include kit foxes, badgers, coyotes, barn owls, rattlesnakes, and gopher snakes. Insects and birds potentially are competitors for seeds.

Pallid bat (*Antrozous pallidus*) have been found in the region. Due to their rarity in California, these bats are a California Species of Special Concern. The pallid bat is a large-eared, light colored bat of western North America. This species roosts colonially in caves, mines, crevices, and abandoned buildings. The pallid bat is usually found in rocky, mountainous areas, and near water. They are also found over more open, sparsely vegetated grasslands, and they seem to prefer to forage in the open. They rarely catch flying insects; instead, they usually capture their prey on foliage or the ground. The pallid bat has three different roosts. The day roost is usually in a warm, horizontal opening such as in attics or rock cracks; the night roost is usually in the open, near foliage; and the hibernation roost, which is often in buildings, caves, or cracks in rocks (Miller, 2002).

San Joaquin kit fox (*Vulpes macrotis mutica*) has been found within the Project Study Areas. The San Joaquin kit fox is Federal Endangered and California Threatened. The kit fox is uncommon to rare. They reside in arid regions of the southern half of the state (Grinnell et al. 1937, Wilson and Ruff 1999:150). This usually nocturnal mammal lives in annual grasslands or grassy open stages of vegetation dominated by scattered brush, shrubs, and scrub. Kit foxes primarily are carnivorous, subsisting on black-tailed jackrabbits and desert cottontails, rodents (especially kangaroo rats and ground squirrels), insects, reptiles, and some birds, bird eggs, and vegetation (Egoscue 1962, Laughrin 1970, Morrell 1971, 1972, Orloff et al. 1986). Their cover is provided by dens they dig in open, level areas with loose-textured, sandy and loamy soils (Laughrin 1970, Morrell 1972). Pups are born in these dens in February through April. Pups are weaned at about 4-5 months. May not require a source of drinking water. Some agricultural areas may support these foxes. Potential predators are coyotes, large hawks and owls, eagles, and bobcats. Cultivation has eliminated much habitat. Kit foxes are vulnerable to many human activities, such as hunting, use of rodenticides and other poisons, off-road vehicles, and trapping.

Based on the results of previous San Joaquin Kit Fox Habitat Evaluations that have been conducted for the area, the standard mitigation ratio for projects on parcels **less than 40 acres** in size has been established as 3:1 and 4:1, where each acre impacted resulted in three or four acres preserved. The proposed Project will result in the installation of PV arrays within most of the seven square-mile footprint. Based on

CDFG comments received for the previously proposed Ausra project and as a part of the original NOP, substantive measures are anticipated to address biological impacts from a project of this size. Additional biological reports are currently underway to further address issues raised by CDFG.

Tulare grasshopper mouse (*Onychomys torridus tularensis*) has been found in the region. Tulare grasshopper mouse is considered a California Species of Special Concern. The Tulare grasshopper mouse lives in arid grasslands, shrub lands, and alkali sink habitats in the San Joaquin Valley. This species is carnivorous, feeding on scorpions, beetles, grasshoppers, pocket mice, western harvest mice, lizards, and frogs with some seeds taken when no other food sources are available. Young are born in the late spring to early summer and both parents care for them. Grasshopper mice are territorial and males will produce a sharp call to mark their territory. Predators of this species include badgers, San Joaquin kit fox, coyote, and barn owls. Primary threats include habitat destruction and fragmentation and the use of pesticides. This species is currently considered a California species of special concern (CDFG, 2007).

Other sensitive mammals in general area: Pronghorn Antelope, Tule Elk, and short-nosed kangaroo rat.

Reptiles

Blunt-nosed leopard lizard (*Gambelia sila*) has been found in the region. The species is listed as endangered at the federal level. The blunt-nosed leopard lizard is endemic to the San Joaquin Valley, and extends eastward into the Carrizo Plain and Cuyama Valley. This lizard is not found above 800 meters (2,600 feet) in elevation (Montanucci 1970). Blunt-nosed leopard lizards feed primarily on insects and other lizards. They appear to feed opportunistically on animals, eating whatever is available in the size range they can overcome and swallow.

Breeding activity begins within a month of emergence from dormancy and lasts from the end of April through June. Leopard lizards use small rodent burrows for shelter from predators and temperature extremes (Tollestrup 1979b). Burrows are usually abandoned ground squirrel tunnels, or occupied or abandoned kangaroo rat tunnels (Montanucci 1965). Montanucci (1965) found that in areas of low mammal burrow density, lizards will construct shallow, simple tunnels in earth berms or under rocks.

Blunt-nosed leopard lizards inhabit open, sparsely vegetated areas of low relief on the San Joaquin Valley floor and in the surrounding foothills (Smith 1946, Montanucci 1965). On the Valley floor, they are most commonly found in the Nonnative Grassland and Valley Sink Scrub communities. The soils are saline and alkaline lake bed or playa clays that often form a white salty crust and are occasionally covered by introduced annual grasses.

The dramatic loss of natural communities (95%) has been the result of agricultural cultivation, petroleum and mineral extraction, pesticide applications, off-road vehicle use, and construction of transportation, communications, and irrigation infrastructures. Lizards displaced by degraded or lost habitat may be unable to survive in adjacent habitat if it is already occupied or unsuitable for colonization (USFWS 1985a, Williams and Tordoff 1988). Direct mortality occurs when animals are killed or buried in their burrows during construction, killed by vehicle traffic on access roads, drowned or mired in pools of oil (Montanucci 1965, Mullen 1981, Kato and O'Farrell 1986, Kamo et al. 1987b) and uncovered oil cellars (USEWS 1988), or fall into excavated areas from which they are unable to escape (O'Farrell and Sauts 1987).

Other reptiles: Coast horned lizard (*Phrynosoma coronatum* {frontale population}), San Joaquin whipsnake.

Amphibians

Western spadefoot toad (*Spea* (= *Scaphiopus*) *hammondi*) has been found in the region. Western spadefoot toad is a federal species of concern, and a California species of Special Concern. The species occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.

Habitat- Vernal Pool Region

Both Study Areas are located within the Carrizo Vernal Pool Region designated by the California Department of Fish and Game and the US Fish and Wildlife Service. Furthermore, the Study Areas are located approximately two miles northwest of an area designated as critical habitat for the vernal pool fairy shrimp (*Branchinecta lynchi*), a small aquatic crustacean that is listed as a federal threatened species and is associated with vernal pool habitat.

Vernal pool habitat consists of seasonal wetlands (i.e. areas that pond water during the wet season and dry up during the summer months) that may provide habitat for sensitive aquatic plant and animal species.

Ongoing biological surveys have identified vernal pools, wetlands, and fairy shrimp species on the project site. These locations will be avoided by the project.

Wildlife Networks

"Wildlife movement corridors" are connections between habitat patches that allow for physical and genetic exchange between animal populations. These connections may be local, such as between foraging and nesting or denning areas, or regional in nature. As undisturbed habitats become surrounded by development, they become isolated from neighboring areas. Wildlife movement corridors provide critical linkages between islands of open space, isolated foraging and breeding habitats, and other important wildlife use areas. Loss of such corridors limits the diversity of gene pools within the isolated populations potentially leading to inbreeding and lack of genetic variability. Drainage courses and adjacent upland habitats typically can function as movement corridors providing water and cover for animals.

The Project proposes to install a six-foot fence (with barb wire strands above) around the perimeter of the Project. Openings to allow kit fox passage have been included in the design.

Biological Report. Per the preliminary biological report (Althouse & Meade; July, 2008), thirty seven special status wildlife species for the region were identified. Of these twenty four were identified as potentially occurring at the site.

Mitigation/Action Required. Potentially significant impacts to biological resources must be identified and evaluated by a qualified biologist. The biological resource analysis should include, but not be limited to, the following:

1. Consultation with the State Department of Fish and Game and the United States Fish and Wildlife Service. Also, work with the Corps of Engineers to determine if a Section 404 permit will be required as a part of the permitting process.
2. Consultation with the California Native Plant Society, the Audubon Society, and other conservation organizations as appropriate.
3. Identification of all rare, threatened and/or endangered plant and animal species on site.
4. Identification of all rare, threatened and/or endangered plant and animal species off-site which could potentially be affected by the proposed Project.
5. Identification of other sensitive, unique or important plant and animal species and communities

- of the Project area.
6. Peer Review of Biological Report(s) to determine adequacy of field work, and if supplemental field work necessary (e.g., protocol surveys, etc.); if protocol surveys determined necessary, EIR consultant shall estimate scope and costs as an optional task.
 7. The consultant shall either use existing information or prepare mapping that illustrates the locations of the following (if any):
 - a. Location of individuals and groups of rare, threatened, and/or endangered plant species.
 - b. Habitat for rare, threatened and/or endangered plant and animal species.
 - c. Wetlands and riparian areas.
 - d. Other areas of sensitive, unique or important biological resources.
 8. Evaluation of solar panel shade and the effects on existing/future conditions for habitat/vegetation and impacts to surrounding habitat/wildlife.
 9. Identification of short-term and long-term impacts on rare, threatened, and/or endangered species and species habitat.
 10. Identification of cumulative impacts on the area's ecosystem, which could result from the Project. At a minimum, this shall include detailed analysis of the movement needs of/impacts to the San Joaquin Kit Fox, Tule Elk and Pronghorn Antelope as it relates to the other anticipated solar plant.
 11. Identification and discussion of feasible mitigation measures, if any, which could be included in the Project to minimize potential adverse biological impacts to less than significant levels.

| 5. CULTURAL RESOURCES - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|---|------------------------------------|---|-------------------------------------|---------------------------|
| a) <i>Disturb pre-historic resources?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) <i>Disturb historic resources?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) <i>Disturb paleontological resources?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) <i>Other:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. The project is located in an area historically occupied by the Obispeno Chumash No paleontological resources are known to exist in the area. A cultural and historical survey is underway and will determine the presence of historic structures and cultural resources.

Impact. The Project is located in an area that has limited information due to the lack of reports and development within the general area. A surface report was prepared for the nearby Arco solar facility site, which identified evidence of pre-historic occupation. Painted Rock, a very significant prehistoric resource in the Carrizo Plain, is located several miles to the south. The Project proposes to install PV arrays over much of the seven square mile (4,500 acre) area proposed for the solar farm. Due to the limited amount of surface disturbance, potential impacts to paleontological resources are considered negligible. The Applicant is in the process of preparing a Phase I surface survey for the proposed study areas.

The Applicant has completed field surveys for cultural resources, including walking surveys of both Study Areas. The written report is under preparation and will be submitted prior to completion of the EIR analysis.

Mitigation/Action Required. Due to the potentially significant impacts to cultural resources, additional analysis is needed by a qualified archaeologist and shall include, but not be limited to, the following:

1. A review of archaeological records to identify known archaeological sites (historic and prehistoric).
2. A peer review of the Phase I surface survey. If resources are encountered, determine if additional field work is necessary (e.g., Phase II subsurface survey).
3. An evaluation and discussion of the cultural importance of any on site and/or surrounding archaeological resources.
4. Review of geologic formations and proposed grading to discuss potential impacts to paleontological resources.
5. Recommendation and discussion of adequate and feasible mitigation measures, if any, to ensure that known and unknown archaeological (and if applicable, paleontological) resources are adequately protected.

The location and detailed descriptions of pre-historic archaeological resources shall be contained in an appendix to be published under separate cover and clearly marked "Confidential, Not for Public Review".

| 6. GEOLOGY AND SOILS - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|---|----------------------------|--------------------------------------|--------------------------|-------------------------------------|
| a) <i>Result in exposure to or production of unstable earth conditions, such as landslides, earthquakes, liquefaction, ground failure, land subsidence or other similar hazards?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) <i>Be within a California Geological Survey "Alquist-Priolo" Earthquake Fault Zone"?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) <i>Result in soil erosion, topographic changes, loss of topsoil or unstable soil conditions from project-related improvements, such as vegetation removal, grading, excavation, or fill?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) <i>Change rates of soil absorption, or amount or direction of surface runoff?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) <i>Include structures located on expansive soils?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) <i>Change the drainage patterns where substantial on- or off-site sedimentation/ erosion or flooding may occur?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) <i>Involve activities within the 100-year flood zone?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| 6. | GEOLOGY AND SOILS - Will the project: | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|----|--|------------------------------------|---|-------------------------------------|---------------------------|
| h) | <i>Be inconsistent with the goals and policies of the County's Safety Element relating to Geologic and Seismic Hazards?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) | <i>Preclude the future extraction of valuable mineral resources?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| j) | <i>Other:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting

GEOLOGY - The following relates to the project's geologic aspects or conditions:

Topography: Nearly level to moderately sloping

Within County's Geologic Study Area?: No

Landslide Risk Potential: Low to moderate

Liquefaction Potential: Low to moderate

Nearby potentially active faults?: Yes Distance? Not applicable

Area known to contain serpentine or ultramafic rock or soils?: No

Shrink/Swell potential of soil: Low to moderate

Other notable geologic features? None

Regulatory Policies. In addition to the Uniform Building Code, the County has two additional documents providing guidance for new development in areas with soil or geological challenges, which are the County's Safety Element and Land Use Ordinance. For projects over an acre in disturbance, Regional Water Quality Control Board requires that a Storm Water Pollution Prevention Plan be prepared to address surface water quality.

With regards to the County's Safety Element, it includes the following goal: *"Minimize the potential for loss of life and property resulting from geologic and seismic hazards"*. This Element also includes policies and standards intended on achieving this goal.

The County's Land Use Ordinance includes provisions to address geological problem areas, drainage, and sedimentation and erosion control [and are described in more detail as follows].

DRAINAGE – The following relates to the Project's drainage aspects:

Within the 100-year Flood Hazard designation? Yes, for some of the onsite tributaries.

Soil drainage characteristics: Not well drained to moderately drained

For areas where drainage is identified as a potential issue, the Land Use Ordinance (LUO Sec. 22.52.080) includes a provision to prepare a drainage plan to minimize potential drainage impacts. When required, this plan would need to address measures such as: constructing on-site retention or detention basins, or installing surface water flow dissipaters. This plan would also need to show that the increased surface runoff would have no more impacts than that caused by historic flows.

Both Project Study Areas drain into the Carrizo Plain watershed eventually ending in Soda Lake.

SEDIMENTATION AND EROSION – Soil type, amount of disturbance and slopes are key aspects to

analyzing potential sedimentation and erosion issues. The Project's soil types and descriptions are listed in the previous Agriculture section under "Setting". As described in the NRCS Soil Survey, the Project's soil erodibility is as follows:

Soil erodibility: Low to moderate

FLOOD HAZARD - Future development on the subject property will be required to prepare a "flood hazard" drainage plan (per County Land Use Ordinance, Sec. 22.14.060) that will also be incorporated into the development to further minimize potential drainage impacts. This plan will also need to include adequate measures, such as constructing onsite retention and detention basins, or installing surface water flow dissipaters. The plan will need to show that there will not be any increase in floodwater elevations beyond that permitted by local and federal requirements. Special construction standards are required, where:

- ✓ Floodways are not impeded nor flood heights increased,
- ✓ Structures are securely anchored,
- ✓ Electrical and heating equipment is "floodproofed" or constructed at least one foot above the "100-year" flood line,
- ✓ Water supply and sewage systems are designed to minimize infiltration into the systems, as well as minimize discharge into flood waters,
- ✓ Buildings to be located at least one foot above the 100-year flood elevation,
- ✓ The storage of buoyant, flammable or explosive materials is not allowed,
- ✓ The storage of other items require special treatment.

The Applicant has prepared and submitted a plan that delineates 100-year flood zones, and the current Project plans avoid locating any PV arrays or structures within the 100-year flood boundaries. A few road and overhead collection system crossings may be located within the 100-year flood zones. Hydrology and drainage reports will be submitted for both the Option A and Option B Study Areas.

Grading of one or more acres

Clean Water Act. The Clean Water Act has established a regulatory system for the management of storm water discharges from construction, industrial and municipal sources. The California State Water Resources Control Board (SWRCB) has adopted a National Pollutant Discharge Elimination System (NPDES) Storm Water General Permit that requires the implementation of a Storm Water Pollution Prevention Plan (SWPPP) for discharges regulated under the SWRCB program. Currently, construction sites of one acre and greater may need to prepare and implement a SWPPP which focuses on controlling storm water runoff. Municipal and industrial sources are also regulated under separate NPDES general permits. The Regional Water Quality Control Board and County are the local extensions of the SWRCB, who currently monitors these SWPPPs.

Seismic Hazards

Portions of the Coast Range of California lie within the County. This range is considered a geologically complex and seismically active region that is subject to earthquakes and potentially significant groundshaking, fault rupture, liquefaction, tsunamis, and seiche hazards [(see following discussion)]. Active, potentially active, and inactive faults are located throughout the County.

Within the County, the Coast Range is further divided into four distinct seismotectonic domains including the Santa Maria-San Luis Range, Coastal Franciscan, Salinan, and the Western San Joaquin Valley. The Project is within the Western San Joaquin Valley domain and generally described

as follows:

Western San Joaquin Valley Domain. This area is located adjacently west of the San Andreas Fault, and includes the Shandon-Carrizo planning area of the County. This domain does not encompass any major existing communities in the County but is considered active due to the proximity to the San Andreas Fault.

San Andreas Fault

The most seismically active fault in California is the San Andreas fault, which lies about 3 miles to the northeast of the Project. The San Andreas fault is the primary surface boundary between the Pacific and North American plates, and it is generally considered to be the most likely source for strong ground motion in the County of San Luis Obispo. There have been numerous historic earthquakes along the fault, and it is considered capable of producing a maximum Mw of 7.8.

Approximately 600 miles long, the San Andreas fault extends from the Gulf of California to the north coast of California just south of the town of Humboldt. The fault is a right-lateral strike-slip fault and, for classification purposes, is divided into several segments. Locally, the Cholame segment extends southeast from Cholame for about 40 miles, and joins the Carrizo segment, which extends another 90 miles to the southeast. The fault undergoes a major change in character between Parkfield and Cholame. North of Cholame, the fault moves more or less constantly in a process called creep, whereas the south end of the fault is locked, moving only in very large earthquakes. The last major earthquake on this part of the fault was the 1857 event (magnitude 8.0 or greater). In the immediate vicinity of Parkfield, there is a 20-mile segment that is locked, generating an earthquake approximately every 20 years on average. Dated earthquakes on this segment are 1881, 1901, 1922, 1934, 1966 and 2004, and are usually in the magnitude 5.5 to 6.0 range, (Bakun, 1988). A 6.0 magnitude earthquake last occurred on this fault segment on September 28, 2004 (USGS, 2004).

San Luis Range Fault System

Groundshaking. Groundshaking (or seismic shaking) caused by fault movement during an earthquake has the potential to result in the damage or destruction of buildings, infrastructure, and possible injury or loss of life throughout the County. Groundshaking may occur as a result of movement along a fault located within the County or along a more distant fault. The intensity of groundshaking in a particular area is dependent on several factors, including: the earthquake magnitude, distance from the epicenter, duration of strong ground motion, local geologic conditions, and the fundamental period of the structure. Groundshaking can also trigger secondary seismic phenomenon such as liquefaction, lateral spreading, seismically induced settlement and slope instability, tsunami and seiche, and other forms of ground rupture and seismic responses (SLO County 1999).

Fault Rupture. Fault rupture refers to displacement of the ground surface along a fault trace, and is a potential hazard where future development would cross or be constructed astride known fault zones, such as the San Andreas Fault (about 2.6 miles to the northeast). Damage associated with fault-related ground rupture is normally confined to a narrow band along the trend of the fault, and fault displacement usually involves forces so great that it is generally not feasible (structurally and economically) to design and build structures to accommodate this rapid displacement. The greatest risk for fault displacement is generally thought to be along historically active and potentially active faults.

Liquefaction. Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking. Soils transform from a solid to a liquid state as a result of rapid loss of shear strength and increased pore water pressure induced by earthquake vibrations. Liquefaction occurs in saturated soils, that is, soils in which the space between individual soil particles is completely filled with water. This water exerts a pressure on the soil particles that influences how tightly the particles themselves are held together. Prior to an earthquake, the water pressure is relatively low. However, earthquake shaking can cause the water pressure to increase to the point where the soil particles can

readily move with respect to each other. Generally, liquefaction requires loose, unconsolidated silts or sands at or near the groundwater table. Because liquefaction only occurs in saturated soil, its effects are most commonly observed in low-lying areas near bodies of water such as rivers, lakes, bays, and oceans. The effects of liquefaction may include major sliding or slumping of soil toward the body of water, or more modest movements that produce tension cracks. Liquefaction susceptibility is primarily a function of sediment type, age, density, depth of the sediment layer, and depth to groundwater. Research and historical data indicate that saturated sediments with clay contents of less than 20% are most susceptible to liquefaction. Generally, liquefaction susceptibility decreases as depth to groundwater increases. Three basic types of ground failure are associated with liquefaction: (1) flow failures (soil materials flowing rapidly down slope in a liquefied state); (2) lateral spreading (limited displacement of surface soil layers down mild slopes); and (3) loss of bearing strength (failure of foundations due to weakening of underlying soil material).

Impact. As proposed, the Project will result in the installation of PV arrays over approximately seven square miles (4,500 acres). The Applicant has prepared the following: site slope analysis, preliminary grading and drainage plan, preliminary erosion control plan, FEMA flood map. The Applicant has also previously prepared a preliminary geotechnical report.

Project grading will create exposed graded areas subject to increased soil erosion and down-gradient sedimentation. Adherence to the County's LUO for sedimentation and erosion control [Sec. 22.52.090] will address many of these impacts; however, due to the size of the development, additional measures may be appropriate to reduce impacts to less than significant levels. Since ground disturbance involves more than one acre the Project will be subject to the NPDES program, which includes additional measures to reduce sedimentation and erosion.

The area proposed for development is within the 100-year Flood Hazard designation. Per County LUO (Sec. 22.52.080), a drainage plan will be required. The required measures are likely to address potential drainage issues to a less than significant level. The Project will also need to be designed to include measures addressing potential impacts from 100-year storm events.

No Project PV arrays are proposed within the 100-year flood areas.

Mitigation/Action Required

Drainage, Erosion, and Sedimentation. A registered engineer must peer review existing data submitted by the Applicant, and evaluate potentially significant drainage, erosion, and sedimentation impacts, and what if any additional technical work is necessary to complete the analysis. The analysis should include, but not be limited to, the following:

1. Consultation with the County Public Works Department, the United States Natural Resource Conservation Service, and the Resource Conservation District.
2. Identification and mapping of significant drainage courses and watersheds, as needed.
3. Identification and mapping of all areas within the Project boundaries that currently experience drainage and/or flooding conditions.
4. Identification and mapping of all areas that could potentially be adversely affected by drainage, erosion, or sedimentation impacts resulting from the development the proposed Project.
5. Identification of cumulative impacts on the area's ecosystem, which could result from the Project changes to drainage, erosion, or sedimentation.
6. Identification and discussion of feasible mitigation measures, if any, which could be included in the Project to minimize potential adverse drainage, erosion, and sedimentation impacts.

Geologic Hazards/Site Alteration. A Certified Engineering Geologist will be needed to consider the following when evaluating the Project's potentially significant impacts to or from geological resources:

1. Consultation with the County Public Works Department, the County Department of Planning and Building, reference to the San Luis Obispo County Land Use Ordinance (including the Safety Element) and County GIS mapping.

2. Incorporate at a minimum the following project setting components:
 - a. Underlying formations
 - b. Faulting
 - c. Slope stability
 - d. Potential liquefaction hazards
 - e. Potential landslide hazards
 - f. Flood Hazards
3. Mapping of significant areas that pose geologic hazards.
4. Evaluation and discussion of the geologic features of the site and surrounding area that may have a significant adverse impact on the development of the Project.
5. Evaluation and discussion of impacts associated with topographical alteration (or saturation of soil, as applicable) including stability of roads, cut slopes, fill slopes, drainage structures, and other improvements.
6. Identification and discussion of feasible mitigation measures, if any, which could be included in the Project to minimize potential impacts related to geologic hazards or topographic alteration.

| 7. HAZARDS & HAZARDOUS MATERIALS - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) <i>Result in a risk of explosion or release of hazardous substances (e.g. oil, pesticides, chemicals, radiation) or exposure of people to hazardous substances?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) <i>Interfere with an emergency response or evacuation plan?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) <i>Expose people to safety risk associated with airport flight pattern?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) <i>Increase fire hazard risk or expose people or structures to high fire hazard conditions?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) <i>Create any other health hazard or potential hazard?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) <i>Other:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. The Project is not located in an area of known hazardous material contamination. The Project is within a high severity risk area for fire; response time ranges from 10 to 20 minutes. The Project is not within the Airport Review area.

Flammable and Combustible Liquid Storage. County LUO section 22.10.070 includes requirements on flammable and combustible liquid storage relating to: applicability, permit requirements, limitation on use, limitation on quantity, setbacks, additional standards within the URL or VRL, and including Cal Fire recommendations, as applicable.

Impact. The Project proposes the following hazardous materials to be used/ stored on-site:

- ✓ Construction: Diesel, oil & gasoline (vehicles); gravel or other road-stabilizing material (roads); and [vegetable] oil (transformers);
- ✓ Operational: Diesel, oil & gasoline (vehicles); and vegetable oil (transformers);
- ✓ Semiconductors within each solar panel include cadmium telluride (CdTe).
- ✓ The Applicant proposes to use best management practices for these hazardous materials. Hazardous wastes (e.g., oil) would be properly contained and disposed of at a permitted facility.
- ✓ Regarding cadmium telluride, the semiconductor material is protectively encased between two pieces of glass. The Applicant has stated that approximately 95 percent of the semiconductor will be recovered and recycled for use in new modules. The Applicant has also stated that CdTe is very stable, as it has a very high boiling and melting point (should there be a fire), as well as not being soluble in water (i.e., should the glass break and come into contact with water. First Solar has commercial-scale recycling facilities in place at all of its manufacturing facilities where they would be recycled into new modules or other new products.
- ✓ With regards to potential fire safety risk, the existing grassland vegetation is considered a low-fuel load type of vegetation and is one of the easier vegetation/habitat types to manage/control when fire conditions exist. The subject properties are nearly level to gently sloping. The primary access points during construction will be from Bitterwater Road and Highway 58 for Study Area B and from Highway 58 for Study Area A. Primary access for both Study Areas will be from Highway 58 during Project operations, and will include approximately 14 miles under Option A and 23 miles under Option B of all weather internal roads. None of the materials used for the permanent portions of the Project are considered flammable (e.g., solar panels & anchors, etc.). Electrical arcing or sparking from exposed wiring between panels or substation, which would be the primary potential for fire hazard, would be minimized with the undergrounding of most of the connection wiring. Based on these elements, once a fire engine is on the scene, containment times of any wildland fire would be substantially reduced. Fire response time from the California Valley station is from 10 to 20 minutes depending on which end of the Project the fire is occurring. The closest fire station is a part-time "paid staff" facility, where in any given week there are three days with paid staff and four days with volunteer support. Response times typically increase and level of service may be diminished during the volunteer support periods.
- ✓ The Project is not expected to conflict with any regional evacuation plan.

Mitigation/Conclusion. Site specific measures are expected to be adequately addressed through standard mitigation from CalFire's review and Fire Safety Plan process. The part-time paid staffing issue at the closest fire station is a potential issue during construction and for the cumulative effects from the two proposed solar projects.

Standard county and state regulations exist for the storage and use for the proposed hazardous materials. A qualified individual will be needed to consider the following when evaluating the Project's potentially significant impacts to or from hazardous materials or wastes:

1. Consultation with the County Environmental Health Division, Regional Water Quality Control Board, State Department of Toxic Substances, the County Department of Planning and Building, CalFire, reference to the San Luis Obispo County Land Use Ordinance;
2. Evaluate existing Project conditions;
3. Identification of any sensitive receptors (human and biological) relating to hazardous materials/wastes;
4. Evaluate impacts associated with proposed storage and use of hazardous materials;
5. Provide discussion of the impacts to or from electro-magnetic fields generated from the Project, the substation(s) and added electricity to existing transmission lines, and discuss the potential

- impacts to human health;
6. As needed, develop additional measures above current regulations to address potentially significant impacts.

| 8. NOISE - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) <i>Expose people to noise levels that exceed the County Noise Element thresholds?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) <i>Generate increases in the ambient noise levels for adjoining areas?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) <i>Expose people to severe noise or vibration?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) <i>Other:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. Due to the very rural aspects of the area, ambient noise levels are usually at or below 40 decibels (dB) during the evening and nighttime hours. During the day, due to the extensive farming and ranching activities, occasional diesel-engine noise is common from tractors, generators and other farming equipment, as well as larger diesel trucks hauling livestock trailers.

The Project is not within close proximity of stationary loud noise sources. The Carissa Plains Elementary School is located one-third of a mile from the closest edge of Study Area A. Other sensitive noise receptors may exist near the perimeter of the development. Due to large lot sizes, the number of potential sensitive receptors is expected to be relatively low.

Study Area B includes two parcels completely surrounded by solar development.

The Applicant previously provided noise contouring information prepared for a smaller but similar plant.

Impact. Short-term construction noise will occur from stationary and transportation related activities. The “stationary” source will be the four ten-acre construction staging areas. The revised anchoring system of driving anchor posts into the soil may result in temporary noise impacts (Applicant has readings of 66 decibels at 100 feet from the post driver from another solar project using this construction method). Material and equipment trucks will be bringing material to the site over a three-year period. The County’s Land Use Ordinance exempts construction noise between 7 am and 9 pm on weekdays and 8 am and 5 pm for weekends. The Applicant proposes to conduct most on-site construction-related activities within these hours. However, construction trucks may be enroute prior to 7 am, and some construction-related activities, such as electrical terminations, may need to occur at night. Haul routes are being reevaluated by the Applicant based on comments from the Public Works Department at the County

The greatest long-term Project noise generators, according to the Applicant, will likely be the transformers and inverters. The Applicant states that the maximum allowable noise ratings at the source for equipment at the Project are: 80 dBA for inverters within the concrete enclosure, 65 dBA for transformers, 75 dBA for the exhaust fan mounted on each inverter enclosure, and 75 dBA for the heating, ventilation, and two air-conditioning (HVAC) systems mounted on each inverter enclosure. Specific decibel levels for these items were provided in the Applicant’s recent response to the County’s data request. The Applicant states the above equipment will be set far enough from the property line to be able to meet the County’s Noise Element thresholds. The traffic noise from the 15 employees is not expected to be significant.

Mitigation/Action Required. While additional information on noise has been requested by county staff from the Applicant, an analysis of noise impacts shall be accomplished by a qualified person experienced in the field of environmental noise assessment and shall include, but not be limited to, the following:

1. Discuss regulatory framework addressing noise.
2. Identifying all loud noise sources from construction and operational aspects of the Project, and specifying decibel levels.
3. Identify all sensitive noise receptors around the proposed development and along transportation routes.
4. Determine if the extended construction period is considered potentially significant for sensitive receptors.
5. Compare stationary noise sources to existing sensitive noise receptors to determine potential significance.
6. Recommendation and discussion of adequate and feasible mitigation measures, if any, to minimize potential noise impacts.

| 9. POPULATION/HOUSING - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|--|----------------------------|--------------------------------------|-------------------------------------|--------------------------|
| a) <i>Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) <i>Displace existing housing or people, requiring construction of replacement housing elsewhere?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) <i>Create the need for substantial new housing in the area?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) <i>Use substantial amount of fuel or energy?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) <i>Other:</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting - Regulatory. The County Housing Element's long-term goal is "to achieve an adequate supply of safe and decent housing that is affordable to all residents of San Luis Obispo County." Towards this end, the Element includes several policies, objectives and fifteen programs designed to retain existing affordable housing or to facilitate provision of new affordable housing. County Code (Title 18) requires that new residential subdivisions are subject to an "Affordable Housing In-Lieu Fee" to enable the County to waive the Public Facility Fee for new affordable housing in the unincorporated portions of the county.

In its efforts to provide for affordable housing, the county currently administers the Home Investment Partnerships (HOME) Program and the Community Development Block Grant (CDBG) program, which provides limited financing to projects relating to affordable housing throughout the county.

The County has recently adopted a revised Housing Element. One of the new Housing Element Programs (Program HE 1.9) indicates that the County will prepare an Inclusionary Housing Ordinance. Upon adoption of the ordinance, future commercial development may be required to pay a fee to support development of new affordable housing.

Project Elements. Two occupied and one unoccupied residences exist within each Study Area. These residences may be removed. In addition there is one occupied residence surrounded by Study Area A and three occupied residences surrounded by Study Area B that are not a part of the Project and are expected to remain.

Impact. The Project's proposes 15 permanent employees. This permanent employee number is considered small and will not result in a need for a significant amount of new housing. If the existing residences are removed, there could be the displacement of two residential households.

The temporary workforce over the three-year construction period is estimated to average around 400 workers at any given time with on-site work being done mostly during the daylight hours no earlier than 7 am. Delivery trucks could be enroute to the site prior to 7 am, and occasional trucks could arrive before 7 am.

The Project is not proposing temporary work force housing. The Applicant has expressed confidence that all workers will commute to and from work daily. Given the remoteness of the Project Site, county staff has concerns that a substantial number of workers, given the transient nature of some of the work, will be seeking locations near the Project Site to temporarily locate an RV or trailer. Such an activity could result in land use compatibility problems, as well as health issues (e.g., dumping of wastewater effluent, etc.).

With regards to energy usage, installation of the Project will use substantial amounts of energy to transport and install the solar panels. However, in the long term, substantial amounts of energy will be saved when other types of power-generating plants are compared.

Mitigation/Conclusion. While the potential for impacts to long-term population and housing is not considered significant, an overview should be completed regarding:

1. Population and housing regulations and conditions;
2. Comparison to Project impacts;
3. Evaluate housing demands/impacts during the construction phase, as well as consider the potential cumulative effects from the other known solar power plants being proposed; secondary impacts from illegal placement of temporary housing should be discussed.
4. If any significant impacts are identified, identify feasible mitigation measures to reduce impacts to less than significant levels.

| 10. PUBLIC SERVICES/UTILITIES - <i>Will the project have an effect upon, or result in the need for new or altered public services in any of the following areas:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|---|-------------------------------------|---|-----------------------------|--------------------------|
| <i>a) Fire protection?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>b) Police protection (e.g., Sheriff, CHP)?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>c) Schools?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>d) Roads?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>e) Solid Wastes?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>f) Other public facilities?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>g) Other:</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. The project area is served by the following public services/facilities:

Police: County Sheriff Location: San Luis Obispo (Kansas Ave.)

Fire: Cal Fire (formerly CDF) Hazard Severity: High Response Time:

Location: Approximately 2 to 3 miles to the southeast.

School District: Atascadero Unified School District.

Existing Regulations

The County-adopted Public Facilities Fee Ordinance (Title 18) provides for the collection of a fair-share fee from new development to help mitigate for cumulative impacts on public facilities. This fee currently being collected helps fund capital improvement projects in the following areas: libraries, fire, general government, parks and recreation, and sheriff's patrol.

Fire Protection

The California Department of Forestry and Fire Protection/San Luis Obispo County Fire Department (CAL FIRE), provides fire protection, emergency medical, and rescue services to the proposed Project. The closest station (California Valley-Simmler) is a part time paid staff (3 days a week) with the balance of the week responding to calls by volunteer

Based on the County's fire severity map the Project is within the high risk area, which identifies the susceptibility to wildland and brush fires. Fire hazard severity is determined by a number of factors including but not limited to: remoteness of the area, denseness of vegetation, the areas circulation network, proximity to fire fighting facilities, habitat type, and the degree of urbanization. These factors among others contribute to an area's overall response time.

CAL FIRE's Response Time map shows it would take approximately 10 to 20 minutes to reach the Project once a call is received from the closest CAL FIRE station. Depending on which part of the Study Area chosen, the closest CAL FIRE station is approximately 5 to 10 miles to the southeast.

Appropriate response times for fire protection services vary with the degree of urbanization. Appropriate response times for urban areas are up to six minutes, for suburban areas up to seven minutes, and rural areas up to twelve minutes. Response times exceeding 15 minutes for structure fires provide little possibility of saving the structure, and 60 minutes or more could mean fires approaching disaster levels in steep, chaparral covered, remote areas such as the Santa Lucia Range. For structure fires, CAL FIRE has mutual aid agreements with all fire protection agencies in the County. An air tanker squadron at Paso Robles Airport is available if needed (CAL FIRE 2003).

CAL FIRE serves the majority of the Shandon-Carrizo planning area, with stations located in California Valley-Simmler, Shandon, La Panza, and Cuyama (Santa Barbara County). Year-round County personnel through CSA 16, provide fire protection service to Shandon. CAL FIRE provides additional staffing during the fire season (SLO County 1996).

Police Protection and Emergency Services

The County Sheriff's Department provides police and patrol services in the unincorporated areas of the County. The County is divided into three areas; North, Coast, and South. The Sheriff's Department is headquartered from the operational facility at Camp San Luis Obispo. Each area has its own substation, which is supervised by a sergeant and staffed with approximately 23 deputies and two legal clerks. According to the Sheriff's Office, the ratio of deputies to population has not kept pace with population growth for many years. The current ratio is one deputy for every 1,140 people. Based on information provided by the Sheriff's Office, an adequate level of service is approximately one deputy for every 750 people.

The North Station is located at 65 North Main Street in Templeton. The North Station's area of responsibility consists of 1,400 square miles and extends from the top of Cuesta Grade to the

Monterey County line and extends east to the Kern County line. Planning areas served by the North Station include: Nacimiento, Adelaida, El-Pomar/Estrella, Salinas River, Los Padres, Las Pilitas, and Shandon-Carrizo. Average response times are in the 5-20 minute range, while longer service requests to outlying County areas can be up to 45 minutes. Poor response times are generally due to the large area being served and the distances involved. These areas include the more rural portions of Adelaida, El-Pomar/Estrella, Nacimiento, Los Padres, Las Pilitas, and Shandon-Carrizo planning areas.

The California Highway Patrol (CHP) services San Luis Obispo County's highways, with stations located in San Luis Obispo and Templeton. They are available to respond in emergency situations, but generally do not respond to residential calls.

Emergency services generally include ambulance and hospital service. Private companies based throughout the County provide ambulance service. Response times are generally good with the exception of the more rural portions of the County where the large area being served and the distances involved lend to poorer levels of service. Hospital services are provided by Twin Cities Hospital in Templeton, Arroyo Grande Community Hospital in the City of Arroyo Grande, and by French and Sierra-Vista in the City of San Luis Obispo. The closest of these facilities is approximately one and a half hours from the subject Project.

Solid Waste

County LUO Section 22.10.150 determines when new land uses must include provision of identified trash collection, pickup and recycling areas, and sets design standards for such areas.

Trash collection and disposal in the County is likely accomplished by one of the following methods: private haulers, individual direct haul to landfills, and illegal dumping, which includes direct on-property disposal for some of the larger rural parcels. The County currently has three permitted public landfill facilities that accept a variety of municipal solid waste: Cold Canyon, Chicago Grade and Paso Robles. There is one private landfill operated by the California National Guard at Camp Roberts. Cold Canyon Landfill is located approximately 6 miles south of the City of San Luis Obispo on Highway 227. Chicago Grade Landfill is located 4 miles northeast of Atascadero off of Highway 41. The Paso Robles Landfill is located 8.5 miles east of Paso Robles off of Highway 46 East. These landfills are under the jurisdiction of, and permitted by, the California Integrated Waste Management Board. These facilities not only accept waste for disposal, but also provide recycling opportunities for the users. Table 1 summarizes each landfill's capacity and estimated lifespan.

Currently, no private hauler service is provided to this area.

| Table 1. Solid Waste Disposal Facilities - San Luis Obispo County | | | | | |
|--|--|--|---|-----------------------------------|-------------------------------|
| Name of Facility | Total Estimated Permitted Capacity: (Cubic Yards) | Total Estimated Capacity Used (Cubic Yards) | Remaining Estimated Capacity (Cubic Yards) | Percent Capacity Remaining | Estimated Closure Date |
| Chicago Grade | 3,100,000 | 1,574,480 | 1,525,520 | 49.2 | 1/1/2020 |
| Paso Robles | 6,495,000 | 1,961,784 | 4,533,216 | 69.8 | 1/1/2034 |

Replacement of components and decommissioning of the facility will occur over the life of the Project. At decommissioning, all panels will be returned for recycling under the Applicant's pre-funded panel collection and recycling program; the Applicant has stated that approximately 90 percent of the panel

materials by mass will be recycled. The remaining materials or wastes from the panel recycling process would be disposed of in accordance with local regulations. The array support structure is predominantly steel, which will be recycled.

Schools

The Project is located in the Atascadero Unified School District. The Resource Management System Annual Resource Summary Report identified the school district's general "level of severity" on student capacity as a "III", which means the current "enrollment equals or exceeds school capacity".

School districts within the County provide enrollment and capacity information relative to individual schools within their jurisdiction. Capacity is defined as design or maximum. Enrollment at 28 out of 58 (48.3 percent) of the County's schools exceeds their design capacities (SLO County 2003). Design capacity is exceeded by the addition of relocatable temporary classrooms to a school site, but there is a practical limit to the number of temporary facilities that can be added before core facilities become so burdened that the educational environment suffers. The maximum capacity is usually about 25 percent higher than design capacity. The County's Department of Planning and Building reports that 18 out of 23 communities in the County have severe school resources capacity problem, where the enrollment is higher than the school's design capacity.

Countywide, several districts have been experiencing significant enrollment declines over the last several years, particularly in elementary schools. The decline is generally attributed to high housing costs in some parts of the county, which deter families with young children from locating there (SLO County 2003).

Revenue for facilities construction comes from both State and local sources, including developer fees. A statutory fee that also contributes to funding facilities is the Stirling fee. This fee is based on the amount of building construction proposed and is adjusted annually. The State Building Program is the primary source of funding for school facility projects. Most County school districts participate in school construction programs, whereby new development contributes a portion of the cost of new facilities, while the remainder is supplied by State and local resident taxes. Local funding alternatives include community approval of a general obligation bond for school construction. The General Obligation (GEO) Bond election process requires two-thirds voter approval. From 1986 to June 2000, only 55 percent of the school districts that held GEO Bond elections successfully earned the two-thirds voter approval for school facility funding. However, Proposition 39, which allows for approval of school construction bonds at a 55 percent threshold, was approved in the year 2000.

Socio-Economics/Fiscal

This Project will have short and long-term fiscal impacts on county services, such as fire and sheriff protection and road maintenance. Funding for many of these services is provided indirectly through property taxes. Approximately 1/3 of the property taxes collected are diverted to the county's general fund which is used to provide county services. Current state legislation provides a property tax exemption for solar plant infrastructure costs. This is an ongoing loss of fiscal revenues that would have otherwise been applied to the life of the Project.

Other existing county revenue-generating fees that still apply to this development include: Public Facility Fee (helps offset some of the cumulative fiscal impacts to the county); recent Housing Ordinance changes now provides for a fee to help provide for low-cost housing.

As a partial fiscal impact offset, a percentage of sales tax (1% of the 9% currently applied) associated with Project capital improvements can be diverted to the county as a "one-time" potential source of revenue (which the Applicant has stated will have a value of approximately \$11 million); and new increase in property taxes resulting from an increase in the reassessed value of land to be purchased by the Project.

The County is in the process of preparing a preliminary assessment of fiscal impacts that are focusing on cumulative impacts from the two solar projects.

Impact. This Project will be introducing uses that will impact public services. These include, but are not limited to:

- 1) Increased need for fire protection and life safety services (e.g., potential for electrical fires, flammable materials being stored on the property, increase of human activities, construction-related accidents, etc.); with the introduction of temporary construction workers for three years (averaging 400 workers at a given time), as well as up to 15 permanent employees in a remote area of the county with no life safety services nearby (at least 1.5 hours away), life safety impacts could be potentially significant.
- 2) Increased potential for vandalism and traffic accidents on roads, and the need for sheriff and CHP services; due to limited staffing for existing Sheriff and CHP Services, and the long distance to existing Sheriff facilities, potentially significant impacts on a short and long-term basis could result for police protection. Additional impacts to the California Highway Patrol are expected during construction, due to the number of construction employees and materials to be brought to the site. In addition, should one or more of the other solar power plants currently being considered begin construction during this three-year construction window, there could also be significant cumulative effects.
- 3) Increased potential for land use violations (e.g., construction workers parking RVs and trailers on nearby lands without permits, etc.);
- 4) Heavy trucks impacting haul routes, which include county roads;
- 5) Permanent jobs and extended construction period would bring families to the area with school-age children (school impacts), due to existing student capacity limitations within the school district, the addition of school children during the construction period and/or operational period may have a significant impact on nearby schools serving this area.

On solid waste, while there is no collection service, available measures (hire private hauler or use permanent employee help to transport waste and recyclables to local landfill. Construction wastes will need to be evaluated to determine how the 50 percent recycle requirement can be met. The Project, along with other development in the area, will have a cumulative effect on police and fire protection, and schools.

Mitigation/Action Required. Due to the potential for significant impacts to public services, additional analysis is needed to consider the following:

1. Consultation with the California Department of Forestry/County Fire Department, the San Luis Obispo County Sheriff's Department, California Highway Patrol and the Atascadero Unified School District.
2. Evaluation and discussion of the past and present status of police, fire, and school services in the Project area, including staffing levels.
3. Identification and discussion of significant impacts to public services, or resulting from inadequate public services, that could result from the development of the Project.
4. Evaluation and discussion of the solid waste to be generated from construction and operational aspects of the Project, and the ability of existing landfill(s) to accept this waste;
5. Discussion of existing recycling requirements/ targets, and how the Project can achieve these; as applicable, develop new measures to maximize recycling efforts;
6. Evaluate the cumulative effects to public services of this Project when considered with other projects in the area;
7. A fiscal impact assessment is needed by an economist to expand on the county's fiscal analysis efforts. The analysis would consider existing regulations, the Project's overall fiscal impacts, and what options exist to help offset any identified un- or under-funded fiscal cost. The analysis would consider the Project's short- and long-term costs to county services, such as sheriff, fire, schools, etc. The report would also consider other indirect costs/benefits, such as

how new job generation will affect fiscal impacts to the county. Lastly, if a county shortfall was identified, the report would identify feasible financial alternatives available to the county to help recover this shortfall.

8. Discussion of the ongoing need to replace components, as well as the eventual decommissioning of the facility, and how these materials will be disposed of.
9. Identification and discussion of feasible mitigation measures, if any, which could be included in the Project to minimize potential impacts related to public services.

| 11. RECREATION - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|---|--------------------------|--------------------------------|-------------------------------------|--------------------------|
| a) <i>Increase the use or demand for parks or other recreation opportunities?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) <i>Affect the access to trails, parks or other recreation opportunities?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) <i>Other</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. The County Trails Plan does not show that a potential trail goes through the proposed Project. The Project is not proposed in a location that will directly affect any trail, park or other recreational resource.

The Project is approximately three miles northeast of the Hubbard Hill Freeborn Mountain Sensitive Resource Area, an approximate 7,000 acre area controlled by BLM. Ultimately, it is expected this area will become a nature preserve.

The Project is approximately six miles north of the Carrizo Plain National Monument.

Impact. The proposed Project will not create a significant need for additional park or recreational resources. The Project includes a 900 square foot "Solar Energy Learning Center" that will provide a means to display how solar power works and will be targeting school classes and the general public. Surrounding lands designated for current or future passive recreation (Hubbard Hill Freeborn Mountain, Carrizo Plain National Monument) will not be directly impacted by this Project. However, the Project will be visible to the Hubbard Hill Freeborn Mountain area.

Mitigation/Action Required. While not considered potentially significant, public recreation impacts need to be analyzed by a qualified individual with expertise in recreation, and shall include, but not necessarily be limited to, the following:

1. Consultation with the County Department of General Services – Parks and Recreation Division and the Bureau of Land Management.
2. Identification of the existing recreational demands and deficiencies in the region.
3. Identification and evaluation of the Project's demand on recreational facilities, and what, if any aspects of the Project will offset the increased demands.
4. Discussion of the adequacy of existing fees, and as appropriate, identification and discussion of feasible mitigation measures which could be included in the Project to minimize potential impacts related to recreation.

| 12. TRANSPORTATION/ CIRCULATION - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|--|-------------------------|--------------------------------|----------------------|----------------|
|--|-------------------------|--------------------------------|----------------------|----------------|

| 12. | TRANSPORTATION/ CIRCULATION - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|-----|---|-------------------------------------|--------------------------------------|-------------------------------------|--------------------------|
| a) | <i>Increase vehicle trips to local or areawide circulation system?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) | <i>Reduce existing "Levels of Service" on public roadway(s)?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) | <i>Create unsafe conditions on public roadways (e.g., limited access, design features, sight distance, slow vehicles)?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) | <i>Provide for adequate emergency access?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) | <i>Result in inadequate parking capacity?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) | <i>Result in inadequate internal traffic circulation?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) | <i>Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., pedestrian access, bus turnouts, bicycle racks, etc.)?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h) | <i>Result in a change in air traffic patterns that may result in substantial safety risks?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) | <i>Other:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. The county has established the acceptable Level of Service (LOS) on roads for this rural area as "C" or better. The existing road network in the area, including the Project's access roads (Bitterwater Road and Highway 58) are operating at acceptable levels due to the low number of vehicles traveling on these roads. However, there are several other elements of concern with each of these roadways. With regards to Bitterwater Road:

- ✓ Roadway subject to seasonal closures due to unstable soils
- ✓ Portions cross San Andreas fault which is subject to continual movement;
- ✓ The roadway is in "Poor to Fair" condition and heavy truck trips will substantially accelerate its deterioration;
- ✓ Portions have operational constraints (e.g., narrow and windy, shoulders lacking, poor sight distance due to horizontal and vertical curve, etc.);
- ✓ There is at least one at-grade "Arizona crossing" over a prominent blue-line creek;
- ✓ Substantial upgrading required to make it useable for heavy truck traffic.

The following elements of concern apply to Highway 58:

- ✓ Portions have operational constraints (e.g., narrow and windy, shoulders lacking, poor sight

distance due to horizontal and vertical curve, etc.)

Public Works reviewed the proposed haul route and provided the above comments. Given the limitations of the chosen haul routes, they looked for any better options. As a result they have recommended the use of Shell Creek/San Juan Roads as the north/south link to Highway 41/46, instead of Bitterwater Road. This route is in “Fair to Good” condition, and has substantially fewer operational limitations than Bitterwater Road.

The Clean Air Plan includes land use management strategies to guide decisionmakers on land use approaches that result in improved air quality. One such strategy, “Planning Compact Communities”, identifies development density increases within urban areas is preferable over density increases in rural areas. Density increases in rural areas results in longer single-occupant vehicle trips and increases emissions, and are not favorable for alternative transportation options. As the Project proposes the use of some shuttles during construction, additional analysis will be necessary to determine significance.

Impact. The proposed haul route is being reevaluated by the Applicant based on comments from the Planning and Public Works Departments at the County. The Applicant anticipates the workers would also use Bitterwater Road, Highway 46, and Highway 58 for site access.

The construction phase would be for about three years and is estimated to generate the following average round trips per day:

| Table Ap.2-4. Estimated Construction Traffic | | |
|--|---|--|
| Purpose | Average Daily Roundtrips (400 workers) | Peak Daily Roundtrips (500 workers) |
| Employee Trips | 78 ¹ | 114 ² |
| Trucks Delivering Road Aggregate ³ (25-ton trucks) | 25 | 40 |
| On-Road Construction Vehicles ⁴ | 5 | 20 |
| Off-Road Construction Vehicles & Equipment ⁵ | 5 | 20 |
| Deliveries (Including PV modules and other construction materials) | 50 | 100 |
| Substation and Switching Station Equipment Deliveries (approx. 20 total deliveries) ⁶ | 2 | 6 |
| Total | 162 | 294 |

Source: Topaz Solar Farms, LLC, 2010.

- 1) 20 shuttle buses of 20 people each, 55 workers driving individual vehicles, and 3 bus trips to transport shuttle drivers away from and back to the site.
- 2) 25 shuttle buses of 20 people each, 85 workers driving individual vehicles, and 4 bus trips to transport shuttle drivers away from and back to the site.
- 3) In total, approximately 2,100 roundtrips will be required to deliver the 40,000 cubic yards of gravel required to improve the onsite construction access roads in Option A, and 4,000 roundtrips will be required to deliver the 75,000 cubic yards of gravel in Option B. The frequency of these truck trips will be distributed as necessary to improve the roads as each group of arrays is installed.
- 4) Includes vehicles such as Pick-Up Trucks and Dump Trucks that can drive on their own to the site. In general, these vehicles will arrive within the first few months of construction and leave at the end of the 3-year construction period.
- 5) Includes vehicles and equipment such as Small Backhoes and ATV Vehicles that are brought in by truck. In general, these vehicles will require two roundtrips by flatbed delivery trucks – one roundtrip near the beginning of construction, and one near the end.
- 6) A total of 5-10 of these will require pilot vehicles.

Approximately 400 pieces of construction equipment/vehicles would be brought to the site that would remain on-site during the duration of Project construction.

Worker travel times would be between 6 am and 9 am, and 3 pm and 6 pm. Deliveries would be between 6 am and 6 pm. The proposed timing of construction may coincide with one other solar power plant (with a similarly-sized construction crew) proposed in the near vicinity.

Mitigation/Action Required. Due to the potential for significant traffic impacts, additional analysis is needed to be performed by a registered Engineer with expertise in traffic, and shall include, but not be limited to, the following:

1. Consultation with the California Department of Transportation and the County Public Works Department, Kern County, the Cities of Atascadero and Paso Robles, and the California Highway Patrol.
2. Identification of the existing traffic capacity and load of the following roads:
 - a. Bitterwater Road
 - b. Highway 58
 - c. Highway 41/46
 - d. Any other roads determined appropriate by the Public Works Department, including Shell Creek/San Juan Roads.
3. Identification and evaluation of existing traffic safety and operational issues for the above-mentioned roads.
4. Identification and discussion of feasible mitigation measures, if any, which could be included in the Project to minimize potential impacts related to traffic capacity or traffic safety.
5. Conduct a cumulative assessment, which includes but is not limited to the other solar power plant proposed in the area. As appropriate, identify mitigation measures and if significant impacts can be reduced to less than significant levels.

| 13. WASTEWATER - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) <i>Violate waste discharge requirements or Central Coast Basin Plan criteria for wastewater systems?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) <i>Change the quality of surface or ground water (e.g., nitrogen-loading, day-lighting)?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) <i>Adversely affect community wastewater service provider?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) <i>Other:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting. Regulations and guidelines on proper wastewater system design and criteria are found within the County's Plumbing Code (hereafter CPC; see Chapter 7 of the Building and Construction Ordinance [Title 19]), the "Water Quality Control Plan, Central Coast Basin" (Regional Water Quality Control Board [RWQCB] hereafter referred to as the "Basin Plan"), and the California Plumbing Code.

These regulations include specific requirements for both on-site and community wastewater systems. These regulations are applied to all new wastewater systems.

For on-site septic systems, there are several key factors to consider for a system to operate successfully, including the following:

- ✓ Sufficient land area (refer to County's Land Use Ordinance or Plumbing Code) – depending on water source, parcel size minimums will range from one acre to 2.5 acres;
- ✓ The soil's ability to percolate or "filter" effluent before reaching groundwater supplies (30 to 120 minutes per inch is ideal);
- ✓ The soil's depth (there needs to be adequate separation from bottom of leach line to bedrock [at least 10 feet] or high groundwater [5 feet to 50 feet depending on perc rates]);
- ✓ The soil's slope on which the system is placed (surface areas too steep creates potential for daylighting of effluent);
- ✓ Potential for surface flooding (e.g., within 100-year flood hazard area);
- ✓ Distance from existing or proposed wells (between 100 and 250 feet depending on circumstances);
- ✓ Distance from creeks and water bodies (100-foot minimum).

To assure a successful system can meet existing regulation criteria, proper conditions are critical. Above-ground conditions are typically straight-forward and most easily addressed. Below ground criteria may require additional analysis or engineering when one or more factors exist:

- ✓ the ability of the soil to "filter" effluent is either too fast (percolation rate is faster or less than 30 minutes per inch and has "poor filtering" characteristics) or is too slow (slower or more than 120 minutes per inch);
- ✓ the topography on which a system is placed is steep enough to potentially allow "daylighting" of effluent downslope; or
- ✓ the separation between the bottom of the leach line to bedrock or high groundwater is inadequate.

Based on Natural Resource Conservation Service (NRCS) Soil Survey map, there are five soil types located within the Study Areas. The main limitations of these soils for wastewater effluent include:

- shallow depth to bedrock**, which is an indication that there may not be sufficient soil depth to provide adequate soil filtering of effluent before reaching bedrock. Once effluent reaches bedrock, the chances increase for the effluent to infiltrate cracks that could lead directly to groundwater source or surrounding wells without adequate filtering, or allow for daylighting of effluent where bedrock is exposed to the earth's surface. In this case, due to limited availability of information relating to the shallow depth to bedrock characteristic, the following additional information will be needed prior to issuance of a building permit: soil borings at leach line location(s) showing that there is adequate distance to bedrock. If adequate distance cannot be shown, a county-approved plan for an engineered wastewater system showing how the basin plan criteria can be met will be required.
- steep slopes**, where portions of the soil unit contain slopes steep enough to result in potential daylighting of wastewater effluent. In this case, the proposed leach lines are likely to be located on areas with gentle topography, as well as sufficiently set back from any steep slopes to avoid potential daylighting of effluent. Therefore, no measures are necessary above what is called out for in the CPC/Basin Plan to address potential steep slopes.)
- slow percolation**, where fluids will percolate too slowly through the soil for the natural processes to effectively break down the effluent into harmless components. The Basin Plan identifies the

percolation rate should be greater than 30 and less than 120 minutes per inch. No soil report has been generated to identify percolation rates for the soil.

For purposes of analysis until supplemental information becomes available, based on the soil type descriptions, the percolation rate will be considered very slow, and the soils are considered "tight". Without proper engineering, effluent will have a tendency to pond or stagnate, and not filter adequately through the soil to properly break down the effluent into harmless components. Therefore, plans will need to be submitted to the county for approval of an engineered septic system or an acceptable design must be submitted to the Regional Water Quality Control Board, and which meets the CPC/Basin Plan criteria. The Applicant is preparing a supplemental study that will describe the proper engineering design of the proposed system.

--**cemented pan and seepage in bottom layer**, where a hardened, impermeable layer of soil exists that does not easily allow the passage of water (or wastewater).

Impacts. The Project will have different construction and operational wastewater impacts. The three year construction period will result in about 400 employees per day. The operational phase will have about 15 employees per day. Temporary and portable facilities are proposed for the construction crews. A permanent on-site septic system is proposed for the 15 permanent employees, which will be located adjacent to the proposed offices at the south end of the Project. The effluent generated during operations is expected to be well below 2,500 gallons per day and not expected to be subject to a Waste Discharge Permit through the RWQCB.

Mitigation/Action Required – Due to the size of the development, it is expected that adequate area will be available for the smaller on-site septic system. Additional percolation information will be prepared by the Applicant to address the above-referenced constraints. An individual familiar with wastewater systems and wastewater regulations shall conduct a wastewater analysis to include, but not be limited to, the following:

1. Consultation with the County Environmental Health Division, County Building Division and Regional Water Quality Control Board.
2. Discuss existing regulations;
3. Identify and discuss any potential constraints for an on-site septic system, and/or impacts to surrounding development or groundwater resources;
4. Discuss measures to reduce impacts to less than significant levels, as applicable.

| 14. WATER - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|--|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) <i>Violate any water quality standards?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) <i>Discharge into surface waters or otherwise alter surface water quality (e.g., turbidity, temperature, dissolved oxygen, etc.)?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) <i>Change the quality of groundwater (e.g., saltwater intrusion, nitrogen-loading, etc.)?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) <i>Change the quantity or movement of available surface or ground water?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) <i>Adversely affect community water service provider?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| 14. WATER - Will the project: | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|--------------------------------------|--------------------------|--------------------------------|--------------------------|--------------------------|
| f) Other: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting – Water Supply conditions. Water supply conditions for the county are described in the County’s Water Master Plan. This Plan divides the County into twelve “Water Planning Areas (WPA)” which generally follows distinct watershed boundaries (and not planning area boundaries).

Within each watershed boundary, water is further divided into quantities available (supply) and the infrastructure to distribute the water. The water supply elements include existing supply, whether from ground, surface or imported supplies, as well as estimates of future demand based on anticipated growth. Water resource delivery infrastructure aspects would include water supply systems such as treatment plants; pump stations, pipelines, storage facilities, etc.

The Project is within WPA 8 - California Valley Area and is summarized as follows (per 2001 San Luis Obispo County Master Water Plan):

WPA 8 - California Valley Area: Water service to the California Valley area is provided by small isolated water systems and individual wells. WPA 8 includes the Carrizo Plain area of the County. Purveyors include the California Valley CSD, the CDF-Simmler Fire Station, California Valley Water, and the Carrisa Plains Elementary School.

The Project is within the Carrizo Plains Groundwater Basin and described as follows:

The Carrizo Plain Groundwater Basin contains a storage capacity of 400,000 acre-feet with a safe yield of 600 acre-feet per year (based on natural recharge). Water depths range from 200 to 600 feet from the ground surface. Current demand (based on SLO Co. Mater Water Plan, 2001) is 930 AFY, where about 200 afy is used for agriculture and 730 afy for rural uses. A detailed hydrogeological report that provides the most recent analysis relating to this basin was prepared for the previously proposed Ausra solar power plant. This report has conducted water modeling for the northern 1/3 of the basin, which would include the proposed Project boundaries.

Regulations - Federal Policies and Regulations. The Safe Drinking Water Act implemented by the Environmental Protection Agency is the primary federal regulation controlling drinking water quality. It was originally implemented in 1974 with significant revisions in 1986. The Act originally set standards for 83 individual constituents, including pesticides, trihalomethanes, arsenic, selenium, radionuclides, nitrates, toxic metals, bacteria, viruses, and pathogens. In 1996, further amendments were made, most of which resulted in more stringent application of controls. The amended Act also adopted a more rigorous schedule for amending the Disinfectants/ Disinfection By-Products Rule and the Enhanced Surface Water Treatment Rule, both of which took effect in 1998.

State Policies and Regulations. The establishment and enforcement of water quality standards for the discharge into and maintenance of water throughout California is managed by the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCB). The SWRCB/RWQCB considers the following regulations when evaluating water quality:

- ✓ Federal Clean Water Act (enforces on behalf of the U.S. EPA);
- ✓ Quantitative objectives based on the California Code of Regulations (CCR), Title 22 - State Drinking Water Standards;
- ✓ University of California Agricultural Extension Guidelines for Agricultural Irrigation Use;
- ✓ Porter-Cologne Water Quality Control Act; and
- ✓ Water Quality Control Board’s Nondegradation Policy.

The County of San Luis Obispo lies entirely within “Region 3 - Central Coast Regional Water Quality Control Board”. The RWQCB is the primary State agency ensuring that the quality of potable water supplies is protected from harmful effects by man.

The Uniform Building Code (UBC) for the State of California contains recommended measures for water conservation for low flow showerheads, faucets, toilets, provisions for grey water recycling systems, etc. These are required in certain communities and in some areas of the County depending on the availability of water.

The State Department of Health Services (DHS) is responsible for overseeing the quality of water once it is in storage and distribution systems. DHS oversees the self-monitoring and reporting program implemented by all water purveyors, performs inspections, and assists with financing water system improvements for the purpose of providing safer and more reliable service. Locally, this aspect is administered by the Environmental Health Division of the County’s Health Department.

Projects involving more than one acre of disturbance are subject to preparing a Storm Water Pollution Prevention Plan (SWPPP) to minimize on-site sedimentation and erosion. When work is done in the rainy season, the County Ordinance requires that temporary sedimentation and erosion control measures be installed during the rainy season.

Existing Site Elements

The topography of the project is nearly level to moderately sloping. As described in the NRCS Soil Survey, the soil surface is considered to have low to moderate erodibility.

Impact.

The Project would require water during construction for site preparation, compaction of building pads, road preparation, and, most importantly, for dust mitigation. In calculating the water requirements, the Applicant has considered the local soil conditions and has allowed for the possibility that three consecutive dry (low-rainfall) years occur during the Project’s three-year construction period. The water demand requirements presented in Table 1 allow for sufficient water supply in order to minimize the impact of dust on the surrounding community and eliminate the potential risk of exposure to Valley Fever. As shown in Table 1, Option B is expected to require more water for soil preparation and dust mitigation purposes than Option A because of Option B’s larger grading (cut and fill) requirement.

Table 1: Water Demand during Construction

| | Daily Demand (Gallons per Day [gpd]) | | Annual Demand (Acre-Feet per Year) | | |
|-----------------|---|-----------------|---|---------------|---------------|
| | Average gpd | Peak gpd | Year 1 | Year 2 | Year 3 |
| Option A | 170,500 | 550,000 | 191 | 191 | 48 |
| Option B | 243,700 | 810,000 | 273 | 273 | 69 |

The Applicant has stated that the Project will use approximately 4.5 AFY thereafter during ongoing operations for employees’ sanitary needs, for visitors to the Solar Energy Learning Center, for equipment and vehicle cleaning and maintenance at the Monitoring and Maintenance Facility, for access road repair, and for other potential uses (no panel washing proposed). While no landscaping is currently proposed, any required landscaping would result in additional water consumption.

As stated above, on-site water appears available via several wells. It is unknown if these amounts are sustainable, or if water quality is adequate for construction or ongoing operational needs.

With regards to surface water quality impacts, Project site preparation and construction will be completed in sections of approximately two to 20 MW each. Development in this manner could reduce the cumulative sedimentation or erosion impacts which in turn could reduce impacts to surface water quality.

Mitigation/Action Required – Water availability. Due to potentially significant impacts on water resources, a peer review of the Ausra/URS water report shall be prepared by a certified engineering geologist and shall include, but not be limited to, the following:

1. Consultation with the County Public Works Department and/or appropriate County Waterworks District, CSDs, Environmental Health Division, Regional Water Quality Control Board and/or appropriate mutual, private, or public water companies.
2. Current and future projections of water demand for the Project based on the various uses making up the proposed Project's water demands.
3. Evaluation and discussion of on site water availability, including:
 - a. Determination of water demand factors and assignment of reasonable usage, based on supportable reference data;
 - b. Feasibility of individual on site well(s), to supply proposed water demand during construction and operations.
 - c. Sustained pumping capacities of on-site well(s) to be used.
 - d. Investigation of draw down (if any) of other wells on site and/or wells on nearby neighboring properties.
4. Evaluation and discussion of the long-term capability of the ground water basin(s) to provide adequate quantities of water, based on peer review of the Ausra/URS report. Additional analysis shall be performed where any deficiencies are identified in the Ausra/URS report.
5. Analysis of existing and potential water quality impacts.
6. Evaluation and discussion of potential impacts on neighboring wells as a result of on site water requirements. This analysis should take into account the cumulative impacts associated with water availability impacts.
7. Discussion of the potential water availability impacts that could occur as a result of increased water use by neighboring properties. Reasons for water use increases could include, but not be limited to, agricultural intensification, expansion of mining activities, and/or residential growth.
8. Identification and discussion of feasible mitigation measures, if any, which could be included in the Project to minimize potential impacts related to groundwater availability. Feasible water conservation measures should be included in the analysis.

Water Quality. Due to potentially significant water quality impacts, additional analysis is necessary by a qualified professional and shall include, but not be limited to, the following:

1. Consultation with the Regional Water Quality Control Board, Environmental Health Division, County Agricultural Commissioner's Office, California Department of Fish & Game, the U.S. Army Corps of Engineers and U.S. Fish & Wildlife Service.
2. Evaluation and discussion of past and present potable water quality in the area of the Project Site. "Area" will need to be defined as a "study area" by the consultant, and should include groundwater basins supplying adjacent properties.
3. Identification and discussion of the potential for potable water contamination to occur as a result of:
 - a. Surface water runoff.
 - b. Overdrafting of aquifer(s).
 - c. Intensification of agricultural uses.
 - d. Topographical alteration.

e. Development.

4. Identification of nearby watercourses and their potential to support sensitive aquatic life. Evaluation of Project's impacts on surface water quality as it relates to any sensitive resources identified.
5. Identification and discussion of feasible mitigation measures, if any, which could be included in the Project to minimize potential impacts related to water quality.

| 15. LAND USE - | <i>Will the project:</i> | Inconsistent | Potentially Inconsistent | Consistent | Not Applicable |
|----------------|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) | <i>Be potentially inconsistent with land use, policy/regulation (e.g., general plan [county land use element and ordinance], local coastal plan, specific plan, Clean Air Plan, etc.) adopted to avoid or mitigate for environmental effects?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) | <i>Be potentially inconsistent with any habitat or community conservation plan?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) | <i>Be potentially inconsistent with adopted agency environmental plans or policies with jurisdiction over the project?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) | <i>Be potentially incompatible with surrounding land uses?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) | <i>Other:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Setting/Impact. Surrounding uses are identified on Page 2 of the Initial Study. The proposed Project was reviewed for consistency with policy and/or regulatory documents relating to the environment and appropriate land use (e.g., County Land Use Ordinance, Local Coastal Plan, etc.).

The proposed Project has the potential to be inconsistent with applicable County plans and policies established to preserve and protect agricultural resources. The Agriculture and Open Space Element, Environmental Plan, Coastal and Inland Framework for Planning, and various Area Plans are examples of County documents containing various policies intended to reduce the impacts to agricultural lands and uses. Potential impacts could include but are not limited to: conversion of agricultural lands (permanently and/or for the life of the Project), conflicts between agricultural and Project uses, and the protection of prime agricultural soils.

There are many County plans and policies designed to protect and preserve the open space resources. These goals and policies include but are not limited to the prevention of urban sprawl, conversion of rural areas to urban land uses, and preserving visual resources.

Discouraging urban sprawl and preventing the conversion of rural lands to urban uses are important in maintaining the open space resources of the County. The Agriculture and Open Space Element is an example of a plan that specifically addresses the prevention of urban sprawl. Open Space Goal 3 of the Agriculture and Open Space Element states: "Prevent

urban sprawl by maintaining a well-defined boundary between urban village boundaries and surrounding rural areas” (Page 3-26, 1998). The proposed solar plant is unique in that it may not be a component of urban sprawl, but due to its size and very different appearance from the surrounding rural uses, it still may conflict with several Open Space goals to preserve the rural environment.

Plans and policies have also been developed to protect the scenic beauty of the County. One mechanism the County uses to maintain visual resources has been the establishment of Highway Corridor Design Standards for protecting public views from scenic roads and highways, such as along portions of Highway 101 and Highway 1. While certain road corridors have been identified as having high quality scenic attributes (with some being designated a Sensitive Resource Area (SRA) combining designation), not all important view sheds are officially designated. The Project should be compared to applicable goals for consistency.

While the Project is not within or adjacent to a Habitat Conservation Plan (HCP) area, it is within the San Joaquin Kit Fox Replacement ratio area, which has elements of an HCP.

Approximately one third of Study Area B is under Williamson Act Contract. When Agriculture-designated land is under contract, solar plants are not typically allowed. The Applicant is proposing a combination of non-renewal/cancellation of the Williamson Act contracts.

Lands not under contract could allow solar plants. Analysis will be necessary to discuss consistency with the “Rules of Procedure to Implement the California Land Conservation Act of 1965”, including Table 2 of this document, as well as discuss the findings that need to be made for non-renewal or cancellation. The California Government Code, such as Section 51238(a)(1) will also be examined for applicability to the proposed Project. Section 51238(a)(1) says:

“Notwithstanding any determination of compatible uses by the county or city pursuant to this article, unless the board or council after notice and hearing makes a finding to the contrary, the erection, construction, alteration, or maintenance of gas, electric, water, communication, or agricultural laborer housing facilities are hereby determined to be compatible uses within any agricultural preserve.”

Mitigation/Action Required. This analysis is to be accomplished by a qualified land use planner and is to include, but not be limited to, the following:

1. Consultation with the County Planning Department, CA Department of Fish & Game, U.S. Fish & Wildlife, Bureau of Land Management, Department of Conservation, Ag Commissioner’s Office, Air Pollution Control District.
2. Evaluation and discussion of the proposed Project as it relates to all applicable elements of the County General Plan including, but not limited to:
 - a. Framework for Planning
 - b. Land Use Ordinance
 - c. Shandon-Carrizo Area Plan
 - d. Agriculture & Open Space Element
 - e. Clean Air Plan
 - f. Rules of Procedure to Implement the California Land Conservation Act of 1965
 - g. Energy Element

| 16. MANDATORY FINDINGS OF SIGNIFICANCE - <i>Will the project:</i> | Potentially Significant | Impact can & will be mitigated | Insignificant Impact | Not Applicable |
|--|-------------------------------------|--------------------------------|--------------------------|--------------------------|
| a) <i>Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) <i>Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) <i>Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

With regards to cumulative impacts, several aspects need further analysis. An important aspect is the the other solar power plant that could be built in the same timeframe as the proposed Project. Several issues such as traffic, visual resources, water consumption and construction impacts could be cumulatively considerable. Secondly, this Project, along with other projects including the other solar plant that is proposed, are competing for use of existing remaining capacity of transmission lines. While the California Independent System Operator (CAISO) controls the transmission lines, it is unknown at this time if adequate capacity exists for all development currently requesting connection to these lines. Additional analysis should be completed to discuss these transmission lines and the environmental impacts associated with the likely upgrades needed to provide the necessary capacity, such as reconductoring. PG&E and the CAISO are currently evaluating upgrades that may be required for projects in this region.

| |
|--|
| <p>For further information on CEQA or the county's environmental review process, please visit the County's web site at "" under "Environmental Information", or the California Environmental Resources Evaluation System at: for information about the California Environmental Quality Act.</p> |
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Exhibit A - Initial Study References and Agency Contacts

The County Planning or Environmental Divisions have contacted various agencies for their comments on the proposed Project. With respect to the subject application, the following have been contacted (marked with an ☒) and when a response was made, it is either attached or in the application file:

| <u>Contacted</u> | <u>Agency</u> | <u>Response</u> |
|--|--|------------------------|
| <input checked="" type="checkbox"/> | County Public Works Department | |
| <input checked="" type="checkbox"/> | County Environmental Health Division | |
| <input checked="" type="checkbox"/> | County Agricultural Commissioner's Office | |
| <input type="checkbox"/> | County Airport Manager | |
| <input type="checkbox"/> | Airport Land Use Commission | |
| <input checked="" type="checkbox"/> | Air Pollution Control District | |
| <input checked="" type="checkbox"/> | County Sheriff's Department | |
| <input checked="" type="checkbox"/> | Regional Water Quality Control Board | |
| <input type="checkbox"/> | CA Coastal Commission | |
| <input checked="" type="checkbox"/> | CA Department of Fish and Game | |
| <input checked="" type="checkbox"/> | CA Department of Forestry (Cal Fire) | |
| <input checked="" type="checkbox"/> | CA Department of Transportation | |
| <input checked="" type="checkbox"/> | California Valley Community Service District | |
| <input checked="" type="checkbox"/> | Other _____ | |
| <input type="checkbox"/> | Other _____ | |
| ** "No _____ comment" or "No concerns"-type responses are usually not attached | | |

The following checked ("☒") reference materials have been used in the environmental review for the proposed Project and are hereby incorporated by reference into the Initial Study. The following information is available at the County Planning and Building Department.

- ☒ Project File for the Subject Application
- County documents**
- ☐ Airport Land Use Plans
- ☒ Annual Resource Summary Report
- ☒ Building and Construction Ordinance
- ☐ Coastal Policies
- ☒ Framework for Planning (Coastal & Inland)
- ☒ General Plan (Inland & Coastal), including all maps & elements; more pertinent elements considered include:
 - ☒ Agriculture & Open Space Element
 - ☒ Energy Element
 - ☒ Environment Plan (Conservation, Historic and Esthetic Elements)
 - ☒ Housing Element
 - ☒ Noise Element
 - ☒ Parks & Recreation Element
 - ☒ Safety Element
- ☒ Land Use Ordinance
- ☐ Real Property Division Ordinance
- ☒ Trails Plan
- ☒ Solid Waste Management Plan

- ☒ Shandon/Carrizo Area Plan and Update EIR
- ☐ Circulation Study
- Other documents
- ☒ Archaeological Resources Map
- ☒ Area of Critical Concerns Map
- ☒ Areas of Special Biological Importance Map
- ☒ California Natural Species Diversity Database
- ☒ Clean Air Plan
- ☒ Fire Hazard Severity Map
- ☒ Flood Hazard Maps
- ☒ Natural Resources Conservation Service Soil Survey for SLO County
- ☒ Regional Transportation Plan
- ☒ Uniform Fire Code
- ☒ Water Quality Control Plan (Central Coast Basin – Region 3)
- ☒ GIS mapping layers (e.g., habitat, streams, contours, etc.)
- ☐ Other _____

In addition, the following Project specific information and/or reference materials have been considered as a part of the Initial Study:

Refer to Initial Study and Application Submittal for technical report references

